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ABSTRACT

This report presents the results of a longitudinal study of professional socialization. The purpose of the study was to discover and understand the changes which take place in students during training and to draw implications for the improvement of professional education. Questionnaires were administered to 3,146 students who began courses in one of six Australian universities with the intention of qualifying for engineering, law, medicine, or teaching. The data was supplemented with information from 2,500 teacher-trainees at the University of London Institute of Education. Some of the results include the following: (a) in law, medicine, and engineering there was general consensus concerning the role of the professional and the service provided, while in teaching there was not; (b) compared with those in engineering, law, and medicine, the students in teaching had a much more negative component in reasons for their career decision; (c) students in teaching who had been enrolled in education courses for all four years retained their initial level of commitment to teaching and did develop some professional attitudes, while those who began study in specifically educational subjects only during the last year (the majority) neither retained their initial commitment nor developed professional attitudes; and (d) compared with practicing teachers, student teachers had a more liberal view of the relationship between school and society, and they initially adhered less to the view that the teacher-pupil relationship is necessarily one of dominance-submission. (Author)

NEW PATTERNS OF TEACHER EDUCATION AND TASKS

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The development of Student-Teachers

A COMPARATIVE STUDY OF PROFESSIONAL SOCIALIZATION

SP009 278

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NEW PATTERNS OF TEACHER EDUCATION AND TASKS

The Development of Student-Teachers
A Comparative Study of Professional Socialization

by

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PREFACE

Within the framework of the programme of work of the Education Committee, the OECD has over the last few years undertaken an analysis of various aspects of teacher policies in primary and secondary education.

At the heart of the problems which confront Member countries in the transformation of the teachers' roles are teacher education and new pattern of teacher tasks. These problems were analysed in an earlier OECD publication : The Teacher and Educational Change - A New Role.

Work and discussions among experts have led to a series of preliminary conclusions concerning trends in the two areas mentioned above and these have been published under the title : New Patterns of Teacher Education and Tasks - General Analysis. This analysis was based on a number of case-studies of innovations in Member countries, which seem to respond to some of the key questions in the future development of the teaching profession.

The interest shown in these analyses has encouraged the Secretariat to publish the most significant of them in a serie of volumes. Each volume contains either country studies dealing with both teacher education and teacher tasks or studies which concern the more general aspects of training policies and changes in teacher tasks and working conditions.

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SUMMARY

1. Professional socialization was used as a perspective for making a longitudinal study of the development, during training, of students preparing for engineering, law, medicine and teaching in several Australian universities. Some comparative information about samples of English student-teachers and practising teachers in four countries was also analysed. The concept of students being socialized for a professional culture proved to be a satisfactory approach for engineering, law and medicine, but not for teaching.

2. Whereas in the other three professions there is more or less a consensus about the nature of the service to be provided to clients, in the case of teaching there is division of opinion, or straightout uncertainty, about the nature of the service, and about who is the client. Furthermore there are aspects of the traditional role of the teacher - those which have led to the teacher-pupil relations being one of dominance and submission - which are unappealing to some, but not all, of the recruits to teaching. The study showed that the student-teachers' images of the successful teacher are by no means as clear-cut or unambiguous as the images held by law and medical students of the successful practitioners in their fields.

3. Compared with those in engineering, law and medicine, the students in teaching, in both Australia and England, had a much more obviously negative component in the reasons for their career decision. Furthermore commitment to the profession decreased over time with the student-teachers, whereas it increased with the other three groups. Attitude change was also different for the teachers : over the years of their courses all students, including teachers, became more liberal and less dogmatic. On specifically professional issues, however, the engineering, law and medical students became less idealistic and more profession-centred ; for example with respect to conflict between client's and practitioner's interests, but there was no such clear development among the student-teachers.

4. These results lead to the suggestion that before the effects of training on student-teachers can be understood it is necessary to classify the recruits according to their degree of commitment and their orientation (radical or traditional) to school teaching. Such a classification was not necessary in the other three groups where most of the students were highly committed to their profession, and where there was little deep questioning of traditional practices.

5. Most of the student-teachers in the study were in end-on courses arranged so that specifically educational subjects were not studied until fourth year, after completion of a first degree in arts or science. There was, however, one small group of students who were in a four-year concurrent course where education studies came earlier. These students did retain their initial level of commitment to teaching and did develop some of the professional attitudes, for example with respect to teacher dominance. As far as could be inferred from the data this difference between the end-on and concurrent students was due, not so much to different curricula, but to (a) more intimate association of the concurrent students with teachers college staff and (b) greater social in-grouping among concurrent students and less exposure to the university environment.

6. The attitude changes in the concurrent students underlines the importance of role-models in teacher training. It is possible that where there are teachers college staff who hold radical orientations the students would develop comparable attitudes to those of the staff.

7. The differences in the commitment of the students in the concurrent and end-on courses points up a dilemma in teacher education. Under the conditions where professional training is introduced early, the recruits become more committed to teaching and more professionalised that when education studies come later. These conditions, however, also insulate the students from the more liberating experiences of a university education. The dilemma applies to training for the other professions too, but in the case of teaching it is more serious because, as agents in the transmission of the best aspects of a common culture, teachers themselves should be exemplars of that culture.

8. Compared with a large sample of practising teachers in Australia, England, New Zealand and the U.S., the student teachers had a far more liberal view of the relation between school and society (less emphasis on job preparation, conformity, etc.) and they were initially less addicted to the view that the teacher-pupil relation is necessarily one of dominance-submission, and in later years at university their views moved even further away from those of the practising teachers. Analysis of the role of the professional classroom teacher leads to the conclusion that, when they become graduates the current generation of student-teachers may retain their liberal views concerning the relation of schooling to society, but that the realities of classroom practice will cause them to adopt those means which have traditionally been used by practising teachers to maintain order.

9. From this analysis it is also concluded that if more innovative teachers are required, then the effective point of entry to the system is the structure of schooling rather than at the point of recruitment or of training. While schools continue to have a custodial function, as well as a teaching-learning function, it will be difficult, if not impossible, for teachers to abandon traditional practices.

10. Nevertheless, it is suggested that in recruitment to secondary teaching greater emphasis should be given to securing persons with greater maturity and commitment. Students in the study were mainly young school-leavers whose range of life experiences was very limited. An operational test of maturity would be to require the recruits to have had work experience after leaving school and before entering teaching, and to have been sucessful in a scholarly discipline or other vocation.

INTRODUCTION

This paper reports results from a longitudinal study of professional socialization[1]. The sample is 3,146 students who started courses in one of six Australian universities with the intention of qualifying for engineering, law, medicine or teaching[2]. The researchers were in touch with the students during their first week at university and at intervals until they graduated or left without the qualification which they initially sought. Most of the students have now completed their studies or have dropped out, but a few still linger on in the same course two or three years after the regular time for completion.

The Australian data are supplemented at several points in this report by information from some identical questions used in a study of 2,500 teacher-trainees at the University of London Institute of Education. A second point of comparison is

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(1) The study is being made jointly by the author and Professor J.S. Western, Sociology Department, University of Queensland.

(2) The engineering and law students commenced their courses in 1965, the teaching and medical students in 1967. The sample was all students in the particular course and university who enrolled in first-year in the year of the study. In the case of teaching, where most students first complete an Arts, Science or Economics degree before studying education, intending teachers were identified by including all Education Department studentship holders. Substantial grants are made by the various state education authorities in return for which the students are required to teach for the department, usually for the same number of years as the grant was held. More than 80 per cent of the young recruits to teaching have entered by this method in recent years. The overall response rate to the first questionnaire was 90 per cent. The number of students in universities and courses who responded and the sectional response rates are shown in the Table 1.

(A pilot study involved several hundred students and was made with interviews and open-ended questionnaires. The main study used questionnaires only).

TABLE 1

Students in the Study (n) by University and Faculty

	Engineering		Law		Medicine		Teaching		All students	
	n	% response	n	% response	n	% response	n	% response	n	% response
ANU	-	-	73	80	-	-	-	-	73	80
Melb.	221	98	192	77	211	96	594	97	1,218	94
Monash	110	84	133	69	151	94	456	97	850	90
NSW	250	64	-	-	-	-	-	-	250	64
Qld	-	-	208	100	210	98	227	92	645	97
WA	71	67	39	54	-	-	-	-	110	62
Total	652	79	645	93	572	96	1,277	96	3,146	90

with the international study of teacher roles (Australia, New Zealand, United Kingdom and United States of America). A set of questions from this study about "progressive education" was given to the student-teachers at several points during their training.

The design of the study enabled comparisons to be made between professions and between institutions. Changes in the one group of students over time can be plotted and at certain points the generality of the findings concerning teachers can be checked against international data.

The aim of the study is to discover and understand the changes which take place in the students during training and to draw out implications for the improvement of professional education. The concepts of a professional culture and of an ideal-type profession are used as a perspective for viewing student development and the impact of training. These ideas guided but did not dominate the observations which were made of students' expectations about training and the professions. An attempt is made to identify the contributions of socializing agents - staff members, aspects of course, peers and the professional organization itself - which contribute to the development of the professional person. Because selective mechanism or anticipatory socialization may have influenced students even before the training phase started details were obtained of students' social and educational backgrounds, together with measures of their motivation for choosing their particular course.

At this point it is worth anticipating the finding that the idea of professional socialization to a generally held set of attitudes and values does fit the development of the students in engineering, law and medicine, but not those who embarked on studies leading to teaching. At numerous points in reporting on this study, after being able to generalize about the development of students in engineering, law and medicine, we found ourselves using the phrase "but teachers are different". Some of the implications which this general finding has for the recruitment and education of future teachers, and for the role of the teacher, are discussed in the final section of the paper.

Since student-teachers are the main point of interest in this report it will help the overseas reader to have some details about where they fit into the education systems. In Australia responsibility for primary, secondary and higher education is shared between state and federal governments, and pre-school education is shared between state and federal governments and voluntary associations. At the establishment of the Commonwealth of Australia in 1901, education was one of the areas left by the Constitution to the states, and today state governments continue to exercise formal control over public education outside federal territories. However, the Commonwealth or Australian Government has a significant and growing interest and measure of control through the allocation of "ear-marked" grants.

Although there are differences between the patterns in the states, the general position can be summarised as follows :

Pre-school education : about one-third of the three to four-year-old age groups attends pre-school for at least part of each week. The proportion will increase rapidly as the

Australian government's new pre-schools commission makes additional funds available to state and regional authorities. Until recently only in Tasmania and federal territories were pre-school teachers employed by government authorities.

Primary school : although school attendance is not compulsory until the age of six, most Australian children begin at five in infants schools or classes attached to a primary school. Primary schooling lasts six or seven years.

Secondary school : in all states this is six years, the first four or five years tending to coincide with the age of compulsory attendance. The retention rate to sixth form is about one-third. State secondary schooling is generally comprehensive, any streaming being within rather than between schools. In Victoria and South Australia there are two sorts of state secondary schools : high and technical, the latter providing more options in manual subjects, fewer in humanities, but not precluding the opportunity for students to enter higher education.

About one-quarter of the secondary enrolment is in non-government schools : two-thirds of this in Roman Catholic and one-third in other non-government. These private schools, particularly the latter, tend to emphasize academic education and make a disproportionate contribution to the numbers entering university education.

Higher education : more than one-third of a generation enters higher education in universities, advanced colleges or teachers colleges, though not necessarily direct from school. Approximately one-third of all students in universities are also in employment. Many of these had a break from study after leaving secondary school. The advanced colleges provide an alternative form of high level post-secondary education to universities and are enrolling an increasing proportion of the students in this sector, currently approaching one-half. Teachers colleges have until recently been run by state education departments and as such have had much less financial and administrative independence than universities and advanced colleges which have been largely self-governing. However, teachers colleges are becoming independent of state education departments. Some have been incorporated in multi-school colleges of advanced education while others for the time being will be single-purpose colleges.

Teacher education : the most common arrangement has been for primary teachers to train in state teachers colleges where they receive a three year diploma course, and for secondary teachers to train in university schools of education where the primary degree can be in either education or another course (usually arts or science). In the latter case a one year diploma of education follows the first degree. More recently the advanced colleges have provided a third source of teacher education and in them the distinction between primary and secondary is less sharp.

All of the 1,277 student-teachers in the present study were at one of five different courses of teacher education in three different universities.

At all three universities there are four-year end-on courses, the students first completing a three, or occasionally, four-year degree course in arts, science or economics followed by a one-year diploma of education. In addition at Melbourne there is a four-year concurrent degree course in education and science. In this the students eventually reach the same standard in similar science and education studies as those who studied science and education consecutively. At Queensland a second course provides for two years university study in non-education subjects followed by work as a teacher with education studies completed part-time. Thus in tracing the development of the professional person it is possible to examine differences due to variations in courses of teacher training and to compare student-teachers with students in other faculties. Anticipating once again, it was found that the clearest within-teaching differences were between the students in the concurrent science course and those in the end-on courses. The presence of an end-on science course in the same university as the concurrent course provides a measure of control when interpreting the comparisons.

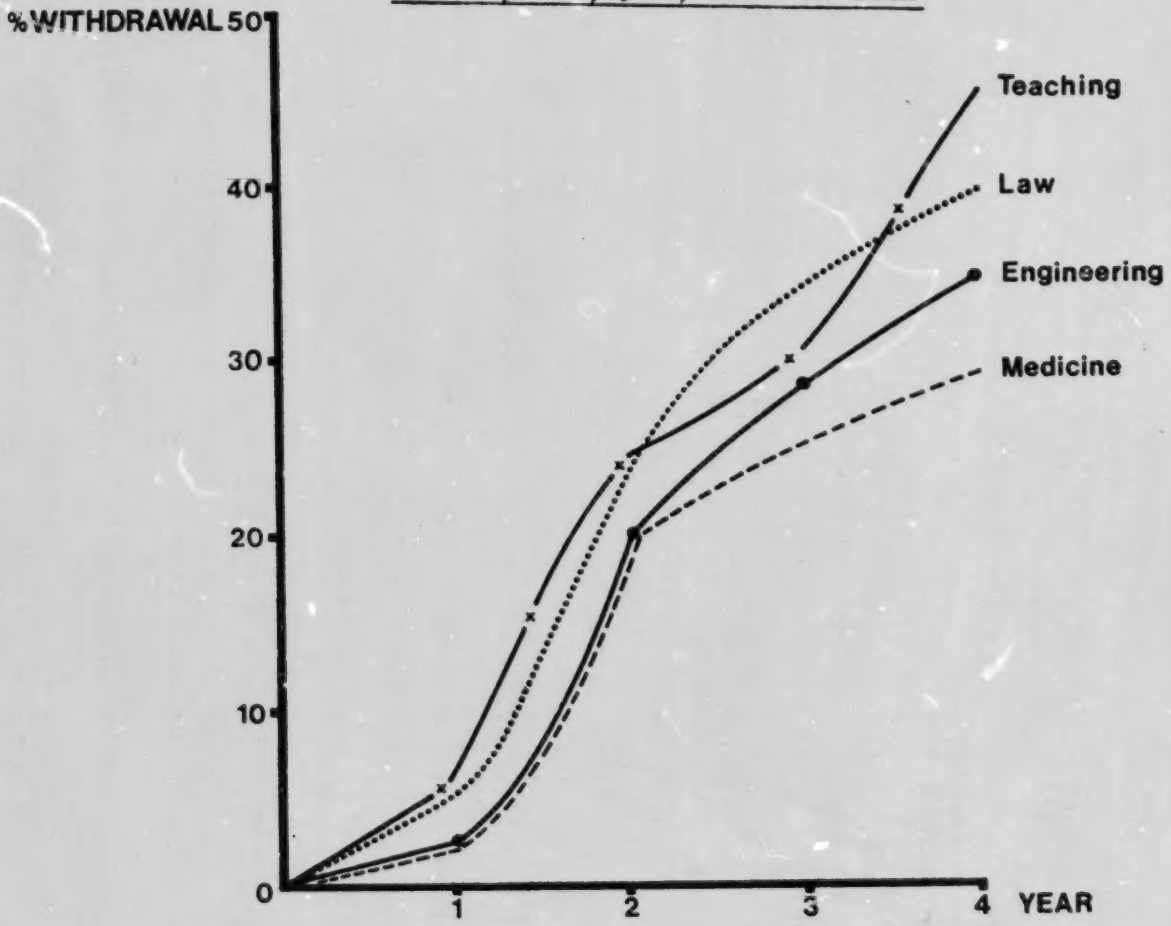
A special study has been made of the students who withdrew without gaining a qualification. The general hypothesis was that the drop-outs were students who come to see that their image of the profession and their self-image are not congruent. The drop-out study focussed on initial differences and on differing experiences of those who stayed and those who resigned.

The proportion which drops out is considerable. Before completion of the fourth year approximately one-third of those who started were no longer in their initial course. The loss was greatest in teaching and least in medicine. (See Graph A). The general shape of the attrition curve is the same for each faculty except that in teaching there is a slackening off before third year and a kick up before fourth year. This may reflect the influence of the employment bond in teaching (if it is broken a substantial repayment is required) which retains students in early years but does not prevent the dissatisfied ones leaving eventually. There was no significant difference between the drop-out curves for the concurrent and the end-on student-teachers.

For those who remain the focus of the study is on the new recruit and the growth of the professional person. Beofre the main study, interviews were held with practitioners and students in each of the four fields. An idea of student development

Graph A

Percentage of Enrolment Withdrawing before Completion of 1st, 2nd, 3rd, and 4th Year



is conveyed by the following summary of the interviewers' reports. (The interviews were of groups of four or five students, each group representing a particular year of the course).

Students in their first year tended to be hesitant, anxious and lacking in self-confidence ; whereas third and fourth year students in law, engineering, medicine and dentistry[1] displayed a striking self-confidence in discussing professional issues, e.g. the need for high quality work versus the desire of the practitioner or employer to increase quantity of output. The senior students argued with an inner conviction and a confidence which, it seemed, derived from the knowledge that they had "made it" : they knew they would soon be practising and, in their mind's eye, were already doing so. Almost a third of their colleagues had disappeared by this stage : perhaps these had been the unsure ones earlier. Certainly survival seemed to have changed the others. Although there was a year or two of study yet to be negotiated, they were sure of entry to their professions and spoke and behaved as if they were professional persons. The medicos and dentists, for example, often in white laboratory coats, had their shoulders back, looked the interviewer in the eye and told him what medicine and dentistry were about. The engineers were similarly confident : they discussed with aplomb the role of the engineer in society - a role they saw largely in technical terms, e.g. building bridges that would not fall down. An assumption which underlay the discussions of all these groups was that they could define the community interest.

Teachers were different. Third and fourth year students (those in fourth year were in their first year of professional training, having spent the first three on general degree studies) were more articulate in talking about themselves than their first year colleagues but, compared with other professions, they were less confident about professional issues. They were quieter, perhaps more thoughtful, but they did not carry the "shoulders-back", "lock-you-in-the-eye", "I am the possessor of special knowledge" impression given by the doctors, dentists, engineers and lawyers.

The more controlled data from the survey confirms that the student-teachers indeed do not develop the same way as their counterparts in the other three faculties. Two possible explanations which are explored in the analysis are :

(1) the initial motivation of student-teachers involves a lower degree of commitment to their profession than that of the engineering, law and medical students to theirs ;

(2) the content of the teachers' courses, particularly the specifically professional component, is different and gives less opportunity for the recruit to "play the role" of the professional.

A third explanation which, while not possible to test directly, has to be borne in mind is that :

(3) there is not an unambiguous image of the teacher with which students can identify as there is for the other three groups. This is because schooling

(1) In the early stage of the study dental students were included but they had to be dropped after the pilot run because of limited funds for research.

is presently the subject of a good deal of public dissatisfaction and because radical alternatives to traditional schooling are now being widely discussed (ranging from "open" schools to no schools at all). There is as yet no comparable debate in the other professions and the recruit to engineering, law or medicine can be confident that the role which attracted him initially will still be there when he graduates.

CHAPTER I

THEORETICAL IDEAS

The perspective of professional socialization is ued to guide the observations of student development. The concept enables a link to be made between student motivation and institutional objectives, both of which include a strong vocational emphasis. The approach permits us to ask how and to what extent the student comes to acquire those attitudes, values and dispositions which characterise a fully-fledged practitioner. It requires that initial differences due to selective factors or to anticipatory socialization between students entering different fields be checked. It also opens the way to asking which agencies are influential in producing changes in students : for example, what is the influence of staff-members, of the structure and content of courses, of fellow students and of contacts which the recruits may have with the professions ? A particular hypothesis suggested by this approach is that students who drop out of training or who choose careers such as research or administration rather than general practice, are ones who come to see that there is a mis-match between themselves and the attributes of a successful practitioner or the conditions of practice. Considerable importance is attached to this section of the study because of the large numbers of students in Australia and other Member countries who drop-out of their initial courses in higher education. The problem is particularly serious in teaching where the loss during training and up to five years after completion is as high as 50 per cent.

The usefulness of the concept of professional socialization has been questioned, e.g. by Oleson and Whittaker (1970) because it directs attention away from other role learning (e.g. sex roles) and because it implies that the student is a passive subject of institutional processing. There is some validity, particularly in the first of these objections. Nevertheless, the role of a worker is as influential as any which must be learned. It is central in the formation of personal identity ; and from a very young age children play at being adult workers. Culture reinforces the importance of occupational choice and few youngsters escape the fond relative's question, "and what are you going to be when you grow up ?"

Realistic occupational choices begin to be made from about the age of 12 onwards, and about half of our sample hade made their career decision by the age of 16. It is significant that the secondary school pupil thinks more in terms of becoming a doctor etc. than in terms of becoming a university student. It will be seen that vocational considerations are predominant in the motivation of university students ; for instance they identify with faculty rather than with university. To the question,

"What are you doing ?", the answer is more likely to be "medicine", "law", "science", "arts for teaching" than "university student". Once they have started their university courses those in the professional faculties are very keen to start training in the practical subjects which they will use in their profession and impatient with the basic sciences or more general studies they are frequently required to take in the early part of their degree courses. Somewhat similar dissatisfaction has been noted among secondary students in both Australia and England, where there is evidence of students wishing to be at work rather than school and an increasing preference for schooling which is vocationally useful.

The assumption of the role of "worker" is very important in the psychological transition from adolescent to adult, a fact which is often overlooked in educational discussions. The learning of a satisfactory work-role is as important in the establishment of a healthy personality as any other role learning. Unfortunately, while young people are reaching physical maturity earlier, society is extending the period of schooling. The adoption by young people of the role of worker and the consequent personal autonomy continues to be deferred. Even in universities students tend to remain in a dependent status to "the authorities".

A second reason for students wanting education which is more useful comes from a sheer weariness, even on the part of the academically oriented students, with a school routine which is heavily bookish. This is a motivational problem as much as anything. In a report on the Canberra secondary students we noted a group-interview in which students in an academic stream told us that they were doing a course in welding at night technical school but not with the intention of becoming welders. One boy put it this way :

"If you're bright you can generally cope with a lot of academic stuff, but you can't stick at that all week, it gets boring, so it's nice to have someting to do that's fairly easy. You can just take a break to do this, it's creative, recreative, it sort of helps life, frees you up a bit."

Why, the students asked, couldn't such courses be available during the day in their own high school ?

The presence of this vocational component in students' motivation and their use of utilitarian criteria in evaluating their curricula (will it be useful ?) provided one set of reasons for choosing professional socialization as a way of looking at the impact of training. A second reasons was the connection between character and occupation, particularly a professional occupation. The roles a person takes up influence his attitudes and, indeed, his whole personality. There is ample reference to this connection in both literature and social science writing. In the case of the professions there are stereotypes - for example of the doctor, the lawyer, the teacher, the soldier, the priest - which may be found over the centuries and in many countries. The attitudes and personality are formed by the work the professional has to do, particularly the social relations of the task. The differentiation is amplified by the attraction which certain occupations have for persons with personality predispositions for the role. In modern times stereotypes are developing

for new occupations : the salesman, the "PR. boys", the big businessman and the public servant.

A code of ethics is held to be one of the characteristics of a profession, and in studying the socialization of recruits-in-training we felt it important to see how ethical ideas, e.g. the maintenance of high standards of schooling without supervision, are acquired. Professional ethics are a form of social control which is exercised partly through external rules and penalties but mainly through the operation of values which the practitioner has internalised.

Professions claim to be the sole repositories of the knowledge necessary to judge professional behaviour and administer codes of ethics ; they set out both the rules governing standards of work and the public interest, and rules prescribing relations with clients and other professionals[1]. Professional control, however, is only very infrequently exercised through the formal apparatus of professional ethics committees, statutory boards, etc. Socialization ensures that the rules are internalised so that, by the time the recruit has become a fully-fledged practitioner, self-control is sufficient to maintain standards of performance and ethical behaviour. The study includes observations of students' ideas about professional autonomy and the regulation of standards.

The professional personality is also the result of a process which helps the practitioner to adapt to work which may have an emotional component. A doctor, for example, who is confronted with a succession of clients, some of whom are in distress, must not become too emotionally involved in any one case : to do so may impair his technical judgement and reduce the number of persons he can help. He must be able to "switch off" after seeing one in order to be ready for the next. This professional demeanour of the medical man is sometimes misread as cynicism ; in fact it is more accurately described as a professional detachment which enables him to apply specialised technical skills to the problem in hand with the greatest efficiency. As we will see, the motivation of freshmen medical students contains a large service component - a concern for suffering and a desire to relieve it. This outlook is harder to find in the later-year student and seems to have been replaced, not by a cynical attitude, but by a much greater interest in the techniques of medicine ; there is a shift in focus from the person to the means. It is as if the students who are approaching practice have come to realise that they must protect themselves from those emotions which would threaten their capacity to make detached judgements and apply professional skills.

In other professions similar role separation occurs. Teachers, who must remain in control of the class-room are careful not to let their relations with

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(1) The theory of the professions with particular reference to school-teachers, has been presented in other OECD papers, e.g. Susan Balloch : "Towards a Policy for the Professionalisation of Teachers", The Teacher and Educational Change : A New Role, General Report, Vol. I, Part Two, OECD, Paris, 1974. For this reason the following discussion has been abbreviated.

pupils become too friendly lest equality is exploited by some who may threaten the teacher's control. They may either develop a paternal approach or become somewhat aloof and domineering. Lawyers, who are initially conservative anyway, become even more cautious as training proceeds. It is the essence of a solicitor's job that he look for all possible flaws in a proposition before signing the deal. He must not convey a property before searching the previous deeds for any disadvantages his client may incur. He is never the optimist saying "in all probability this will not occur" : it is his job to think "what else might occur". Professional habit spills over to everyday behaviour. It has been said that more solicitors carry umbrellas on fine days than any other profession.

In this study focus is limited to four elements in the life-space of a practising professional : his client, fellow professionals, the professional organisation and the general public. It is assumed that associated with each of these elements is an interest, and that these interests are not necessarily coincident with those of the professional himself. The first stage of the field work was to talk with a large number of practising professionals and have them describe situations which commonly arise in practice when the professional has to make a decision involving the conflicting interests of himself, his clients, other professionals, the profession itself and the general public. As an example, a doctor may have as a client an engine driver with a heart condition who refuses to relinquish his job. Does the doctor break professional confidence in the interest of public safety ? Other examples would be a lawyer who is sure that his client is a criminal ; dissatisfied clients moving from one practitioner to another ; engineers pressured to adapt designs to suit political interests ; teachers who wish to criticize publicly the authority which employs them.

In this particular report we are interested in the development by recruits-in-training of the embryonic professional personality. We shall ask how teachers differ from other students even before training starts, what images are developed of the successful practitioner, whether ideas of professional autonomy influenced attitudes to parents and employers, and what attitude students have to innovation in professional practice. We shall attempt to trace students' commitment to the profession and their career intentions. We will be particularly interested in students who drop-out. Wherever possible, outcomes are related to the type of training students have experienced.

In discussing the effect of training on the recruits to professions it will be necessary to bear in mind that there are four general sorts of adaptation available to the student who comes to see that his own attitudes and values are in conflict with the role he would be required to fill as a general practitioner. We have already referred to moulding of the personality to match the demands of the job and to leaving the occupational field altogether. A third option is to seek a position in the profession where the conflict will be minimal, for example the teachers may obtain work in research, administration or guidance. Finally, the recruit may attempt to change the conditions of professional practice so that they are more consistent with his own values. This revolutionary attitude may not be very realistic although there are signs in some professions of conflicts, for example, over serving the community

interest[1], where the line of division is between the older established practitioners and the newer ones, and where the young revolutionaries are not completely ineffective.

In the final section we shall discuss the prospects for change. Assuming that there is a need for teachers who are not only technically competent but are also sensitive and not dependent on a dominant style, the prospects are examined for improvement through changes in recruitment, training and the educational structure.

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(1) Examples are Naderism amongst young lawyers in U.S.A. and the recent revolt of the younger doctors against the General Medical Council in Britain.

CHAPTER II

SOCIAL ORIGINS

The socio-economic origins of school teachers relative to members of other professions has been documented in many countries and a consistent picture emerges. School teaching is an occupation entered by large numbers of young people who are upwardly mobile through the social strata ; that is, it is the profession chosen by many who are the first generation of a family to "escape" from a tradition of manual and rural occupations.

There are very obvious sex differences in the patterns of recruitment to teaching. Girls are more likely to be attracted to primary teaching than boys, and in primary and secondary teaching the proportion of women is increasing - a trend which is causing concern in some quarters and which will be discussed later. The social background of girls entering teaching is more likely than that of boys to be middle or professional class ; girls are also much more likely to have a parent who is a teacher than boys. Within both sex groups there is a difference between primary and secondary teaching, the latter attracting recruits from relatively higher class backgrounds. This last difference may be due to the connection between social class and level of educational attainment, the standard for entry into secondary teaching being higher than that into primary.

The findings from the present study confirm the general picture although there are some marked similarities between teachers and engineers on the one hand, and lawyers and medicos on the other. It appears that students in the science and humanities streams choose medicine and law respectively if they are from high status families, engineering or teaching if they are from low status families.

Medicine and law draw proportionately more of their students from families with higher incomes where parents are more likely to have had university education or at least to have completed secondary school, and where the father is a self-employed professional or, in the case of law, a large-scale employer or senior manager. The students themselves are likely to have been to a non-state school (independent or Catholic) for their secondary education. The proportion of Roman Catholic students in both faculties is slightly higher than in the university and in the corresponding age group.

In law, girls, who comprise only one tenth of the students, are from backgrounds which are even more upper class than those of the men. In medicine however, where girls are one fifth of the students, the social levels of the sexes are similar.

This may be due to the very high levels of academic achievement which are necessary to get into a medicine quota. Brilliant performance counters the disinclination of parents, especially those of relatively lower status, to encourage their daughters to embark on long courses of professional education.

Students destined for teaching or engineering tend to come from families with lower incomes, the parents have had less education, and the father is less likely to be a self-employed professional or large-scale employer or manager. The majority of these students have been to state schools. Teaching contains an even larger proportion of students with a state school background than engineering and an even smaller proportion from independent schools. Two-fifths of student teachers are from country schools, about double the proportion in each of the other three faculties. The proportion who are Roman Catholics and who have been to Catholic schools is below the average both for the universities and for the appropriate population age group. Teaching differs from engineering (and even more from medicine and law) in that both fathers and mothers have had less education and the proportion of fathers who are semi-skilled manual workers or farmers is the highest of any group. The mothers of girls in teaching have had more education than the mothers of men, but their average level is still well below the average of either parent of students of either sex in any other profession. The very low level of formal educational attainment of the parents of male student teachers is particularly noteworthy ; three-quarters of the fathers and four-fifths of the mothers had not completed secondary education.

The school scholastic attainments of the student teachers themselves, while quite reasonable, is on average not as good as that of the students entering engineering or medicine. Teaching also differs from the other groups in having a majority (57 per cent) of girls, almost three times the proportion in medicine and five times that in law (engineering is an all-male faculty).

The influence of a highly educated mother in directing her daughter into a particular area of higher education may be deduced from the data. In all faculties girls are much more likely than boys to have mothers who themselves have university degrees. The influence however is more towards the prestigious professions of law and medicine rather than towards teaching. In law one quarter of the mothers had degrees, compared with only 5 per cent in teaching.

The parents of the student-teachers in the English sample had similar levels of formal educational attainment to those of the Australians. For example, in both countries approximately 10 per cent of the fathers had attended university, which is half the proportion among the engineering students and one third of that for the medical and law students. Similar differences have been reported in other English studies, by Floud and Scott for example (1955).

CHAPTER III

MOTIVATION

The considerations which move a person to take up a particular career are difficult to conceptualize and to measure. External or sociological variables operate as well as inner dispositions. External influences are caught up in a complex which includes school, curriculum, and social class. The educational structure in Australia and in many European countries narrows the choices available as children proceed through secondary school. By fourteen of fifteen pupils are likely to be entering "tracks" which virtually preclude certain options. In Victoria, for example, the division of state secondary schools into high and technical requires a choice at the end of primary schooling which has implications for future occupation ; students entering technical schools are much more likely to become tradesmen and technicians than those who enter high schools. In our sample of university professional recruits virtually none of the Victorians had attended technical schools. On the other hand private schools, particularly non-Catholic private schools in both England and Australia, tend to be preparatory schools for university and the professions and we found that disproportionately large numbers of our sample had had their secondary education in these schools : in the case of medicine and law more than one-third, in engineering and teaching about 16 per cent.

Within schools the system of "levels" or streaming and early specialization further narrows the options. In New South Wales the Wyndham scheme of teaching subjects at various levels, which was introduced with the intention of providing a broad comprehensive education has, as the result of various pressures, come to be a form of ability-streaming such that students allocated to lower levels in their early years are very unlikely to rise to the levels necessary for university entrance. Whether this is due to differential teaching, labelling, i.e. a self-fulfilling prophecy in which students allocated to a "low level" continue to perform accordingly, or a genuine stability of performance level is a largely unresearched topic. Furthermore, the curriculum and university entrance requirements can force students to early specialization. Thus a student wishing to enter one of the scisnce-based university professional courses will need at the age of about fifteen to concentrate his studies in the science and mathematics area. In the case of teaching the Australian practice of awarding studentships with a service bond attached also forces an early decision, especially when the award is available in the last year or two of high school.

The system of schooling operates within, and to a large extent is a manifestation of, a wider social structure. As mentioned earlier, occupation itself is the chief element in social stratification. Parents in different social strata require particular forms and levels of schooling for their children and in doing so help maintain the relative stability of occupational and social level between one generation and the next. Thus almost half of our university professional sample was drawn from families where the father's occupation was managerial (28 per cent) or professional (21 per cent), whereas the proportions of the 45-54 aged men in the work-force in these classifications is only 18 per cent, (12 per cent and 6 per cent respectively). Thus class, schooling and curriculum funnel young people towards particular decisions ; and the latter two also bring pressure for an early decision. In our professional sample almost half the recruits in medicine and teaching and about one-third of those in law and engineering had made their decisions before the age of sixteen. The specialization of university undergraduate training, usually beginning in the first year, requires that the decision for a particular profession be made by the time of university entrance.

The importance of the educational structure can be seen by comparing the age at decision for American, Australian and British students. In the United States, where specialization may occur much later (often during the first degree), decisions for a particular career are made much later. In two samples drawn from studies similar to our own, one-third of the medical students and half of the law students were twenty or older when they decided. In Britain, where specialization also occurs early, but age of entry of the medical school is later than in Australia, the age of career decision tends to be between that in Australia and the United States ; in one U.K. sample 8 per cent were twenty and more, 32 per cent under sixteen.

The more psychological variables, or "individual dispositions" which move persons into occupations may be conceived of as things which attract the person and things which push him. Attractions might be intrinsic to the job itself, for example the satisfaction which a teacher gets from working with young people : or they might be benefits which spring from having a particular job but are not part of the job itself, for example a good salary. Things which push an individual towards a particular career might be other persons, parents for example, or impersonal circumstances such as the availability of scholarships.

In the pilot studies students were asked in both interviews and questionnaires to "describe the main reasons which led you into the study of.....". A content analysis of the replied produced 28 items which were put to students in the main study. Separate cluster analyses of the responses were made for each faculty. Four quite strong dimensions emerged, two of which were common to the four groups. The first contains a set of <u>inter-personal influences</u> : parents, relations, family friends, school teachers, an admired person in the profession, and careers or vocational advisers. The second describes a <u>professional orientation</u> which is comprised of satisfactions intrinsic to the job : the subject matter, service to the community ; and, in the case of medicine and teaching, an interest in working with people. A third dimension which emerged for engineering, law and medicine only, was comprised of <u>attractions extrinsic</u> to the profession itself: social prestige,

financial rewards, independence, and opportunities to move into politics or top administration. The final dimension, found only in teaching, was made up of a set of negative reasons for entering the profession : lack of qualifications for other courses, rejected by another course, or a desire to enter higher education but no strong preference for any particular career.

The identical set of questions was answered by the English student-teachers and cluster analysis produced exactly the same structure of motivation for both the primary and secondary levels as had been obtained for the Australian sample : interpersonal influences, professional orientation and negative reasons[1].

Before discussing scores or levels of motivation it should be understood that these dimensions are obtained from the inter-correlation of items, not from the degree of agreement to particular items. They are an indication of the structure of motivation, not its strength. The existence of a cluster can be taken as evidence that there is an underlying dimension or factor, each of the items in the cluster being an indication of that dimension. The most interesting aspect of this analysis is that the structure of motivation appears to be the same for engineering, law and medicine but different for teaching. Furthermore the same structure characterizes student-teachers in Australia and England, and within England for both primary and secondary levels.

The Australian data were analysed to give students a global score on each relevant dimension. The rank order of importance of each dimension across professions is set out in the Table 2.

TABLE 2

Rank orders to the Importance of Motives in the Career Decision

	Engineering	Law	Medicine	Teaching
Interpersonal influence	3	2	4	1
Professional orientation	2	3	1	4
Attractions extrinsic	3	1	2	-
Negative reasons	-	-	-	1

The motivational profiles of each profession, derived from the answers to individual items as well as dimension scores, is as follows. Engineering is characterized by an interest in the subject matter of engineering as well as in making things, a desire to practice engineering and for a professional career, and an appreciation of the financial rewards from engineering. The law profile is quite similar : an interest in the subject matter of law, desire for professional practice

(1) Dr. Gordon Miller of the University of London Institute of Education ran the motivation and image items (see next chapter) on a large sample of English student-teachers.

TABLE 3

Percentages of Students in each Group Indicating that an item was Important in their Career Decision

	Engineering n = 643	Law n = 641	Medicine n = 572	Teaching		
				...ist. n = 1279	Engl.Sec. n = 1164	Engl.Prim. n = 1285
A particular school-teacher	9	7	5	33	16	14
Admiration for someone in the profession	25	35	45	51	31	25
Interest in subject matter(1)	64	44	52	63	75	46
Interest in serving the community(1)		23	51	25	25	28
Financial attractiveness	74	71	54	56	17	14
A stepping stone to politics, community affairs	33	52	8	19	16	8
High social standing	33	42	40	24	23	21
Failure to get into another course	6	4	3	8	17	8
Lack of qualifications for other courses	5	12	2	10	18	11
A desire to enter higher education with no strong preference for any one course	18	19	13	24	23	23

(1) The percentages for these items (from the professional orientation cluster) are students who rated the topic as "very important". All other figures are the combined responses to the first two points on the 5 point scale which ranged from "very important" to "not at all important".

and an attraction to the financial rewards stemming from legal practice. In addition, however, law is seen as providing access to positions of social power and influence. Power, as well as wealth, then, is an aspect of the legal profile. The medical profile is somewhat different. There is a strong service emphasis with an interest in people, community service and a desire to cure and prevent disease, being important elements. Included as well are professional practice and interest in subject matter. Neither wealth nor power appear. The teaching profile is almost identical to medicine. The service elements, interest in people, contact with youth and community service, are present, as are professional practice and interest in subject matter.

A word of warning is in order. These profiles were obtained from statements made by recruits very early in their courses. Before it can be argued that they are in any way representative of professional norms it would have to be shown that they persist through training and reflect the outlook of practitioners. Certainly the picture formed from our interviews with practitioners is not inconsistent with these profiles but the evidence is scanty. Concerning change during training, we shall see that the broad outline of the profile remains but there are certain subtle changes which take place.

Inter-personal influences were important for all groups, but particularly for teachers. Parental influence was equally important in all professions (contrary to the view that parental pressure is especially important in pushing students into law and medicine). An admiration for someone already in the profession featured prominently in all groups and was particularly strong in medicine and teaching. This suggests that the influence of role models might have greater importance than is often appreciated in discussions of motivation. In the case of student-teachers, especially the Australians, a "particular teacher at school" seems to have been an important influence. Representative items from each of the four dimensions may be seen in Table 3.

For about one-quarter of the student-teachers in both countries the choice of teaching as a career seems to have been made by default. Either they were unable to get into a preferred course or, more commonly, they wished to go on the higher education and had no strong preference for any particular career.

This motivational picture is complemented by asking students to describe the characteristics of a successful practitioner in their own field. The results are in the next chapter.

CHAPTER IV

IMAGES OF THE SUCCESSFUL PRACTITIONER

Occupations select recruits for size and mould them to shape. The personality which is formed has survival value for the practitioner in his work but the role can never be completely quitted and professional habit spills over into everyday life. The teacher and the salesman are recognizable social types. Young people making their career decision are influenced by the stereotype as well as by conditions associated with particular jobs. Part of the process of occupational selection is matching oneself with the image. Knowledge of the images which recruits have of their future profession may assist in recruitment, selection and training of students.

The following chapter examines the images the entering students have of the successful practitioner and the way these images are modified as the course proceeds. Students intending to be teachers are not blind to the less attractive facts of the image, although a survey of undergraduates in the United Kingdom, summarised by Kelsall and Kelsall (1969), showed that those least committed to the idea of becoming a school-teacher had the least favourable view of the profession. Nonetheless, future teachers were aware of the lower social prestige of teaching, that the work may not always remain interesting, that the ultimate pay was poor, and that there was a lack of freedom to plan one's own work. On the personal side the students thought that the typical teacher lacked flexibility and adaptability. These traits are compensated for in the image by ones which depict the teacher as having a sympathetic and receptive manner and being socially self-assured. Although the students recognized that the social prestige of teaching was lower than other professions they regarded it as a "respected profession".

The subtleties of the difference between receiving prestige and receiving respect are not discussed in the Kelsall survey. Certainly the students confirm the findings of numerous studies which place teachers near the bottom of a prestige ordering of professions. In saying that it is "respectable" they may be expressing the somewhat snobbish point that it is more highly regarded than manual occupations : teaching is a frequent choice of children who are socially upwardly mobile, and respectability is one of the values given emphasis by parents who aspire to their children doing better than they did. On the other hand, school-teaching, like medicine, is clearly an occupation serving a need central to the well-being of the community. Teachers are respected for this, the more so because they accept relatively inferior remuneration for their services.

The image of teaching is changing as more and more people reach levels of education equal to or higher than that of the teacher. Once the teacher was accorded

far more prestige and respect than he is now. The traditional village school-teacher commanded the respect of the young and their parents because his intellectual accomplishments were so much ahead of their own. As Goldsmith observed :

> "And still they gazed and still the wonder grew,
> That one small head could carry all he knew."

That was a long time ago and the teacher is no longer one of a handful of literate people in a community. Indeed he is surpassed in knowledge and skill by ever increasing numbers. The image of the teacher has also deteriorated in the 20th century because the conditions have changed. With compulsory schooling the maintenance of order has become an important part of the job. The teacher's consequent role-change produces a personality which commands less respect. In his analysis of what teaching does to teachers Willard Waller (1965) lists favourable and unfavourable personality traits. Teachers, he said, do retain the respect of the community ; they are self-sacrificing, and are marked by patience, reserve and fairness. It is easier, he finds, to list less pleasant attributes. There is in the teacher, he says, a certain inflexibility or unbendingness of personality, a stiff and formal manner and a lack of spontaneity. In psychological terms the reserve of a teacher is the result of an inhibition of total responses in favour of a restricted segment of them. He goes on, "The didactic manner, the authoritarian manner, the flat, assured tones of voice that go with them, are bred in the teacher by his dealings in the school-romm where he rules over the petty concerns of children as a Jehovah none too sure of himself, and it is said that these traits are carried over by the teacher into his personal relations... the teacher mind is not creative. Even the teacher's dress is affected by his occupational attitudes ; the rule is that the teacher must be conservative, if not prim, in manner, speech, and dress. There are other traits which some observers have mentioned : set of the lips, a look of strain, a certain kind of smile, a studied mediocrity, a glib master of platitude".

Waller was writing in the 1930s and perhaps the characterization is no longer true, or true only of a smaller proportion of teachers. Certainly as we shall see there are among present day student-teachers a number who emphatically reject authoritarian aspects of the role ; and among practising teachers are those who persistently refuse to adapt their personalities. Nonetheless, there remain in present day class-rooms the basic conditions which Waller held to be responsible for moulding teachers' personalities, that is the need to maintain order in classes where enthusiasm for learning is by no means unanimous.

The first step in obtaining the student-teachers' images of school teaching was to obtain their views of the relative prestige of the various professions. They were presented with a list of nine professional occupations and asked to rank them in order of prestige. The identical question was put to the sample of English student-teachers.

The main feature of Table 4 is the consistency, across professions and across countries, with which the prestige order is seen. There is agreement by all groups that school teachers have the lowest relative prestige. The four Australian groups put doctors at the top of the list, whereas the English student-teachers place

TABLE 4

Social Prestige of Professional Occupations as Ranked[1] by Four Faculty Groups

	Engineering	Law	Medicine	Teaching Aust.	Teaching England
Doctors	1	1	1	1	3
Diplomats	2	2	2	3	1
Lawyers	4	3	3	4	4
Scientists	3	4	4	2	2
Engineers	5	5	5	6	7
University teachers	6	8	7	5	5
Architects	7	6	8	7	6
Dentists	8	7	6	8	8
School teachers	9	9	9	9	9

(1) Rank order determined by reference to mode. When mode was same, reference was made to median.

them after scientists and diplomats. Both the Australian and the English student-teachers see scientists and university teachers as being further up the hierarchy and engineers and dentists as lower down than the other students do ; conversely the medical students see dentists as higher than the others do. It is as if there is an affinity of students for occupational groups like their own : doctors for dentists, teachers for university teachers and scientists. These, however, are minor variations on perceptions of an order of prestige which is very similar for each of our four groups of students and indeed for samples of the population at large in numerous countries. The placing of school-teachers at the lowest prestige level of professional occupations has been a feature of studies as far apart in time and place as those of Warner in U.S.A. in 1949, David Glass and his colleagues in U.K. in 1954 and Congalton (1972) in Australia in the 50s and 60s. We are not concerned at this point with why the prestige of teaching is lower than that of other professions; that issue has been analysed in some detail by many authors, e.g. Kelsall (1969), and we do touch on the question in the implications section of this report.

The more immediate question is how the image influences recruitment and commitment to teaching. We will see that, compared with students in engineering, law and medicine, the student-teachers are, as a group, less firm in their intention to remain in their profession, and that the loss from teaching will certainly be greater than from engineering, law and medicine. Some of those who have already left teaching were interviewed. In no instance did students give the low prestige of teaching as a reason for withdrawal and there was no association between leaving teaching and perceived prestige. Most referred to aspects of teaching which had not occurred to them at the start of their studies : the limited freedom of a teacher to design his own syllabuses, bureaucratic direction and, in a few instances, lack of promotional

opportunities. If, as we have suggested, dropping out is a result of personal mismatch of self-image and professional image, this concerns details of professional practice and not general evaluation.

In order to find out the details of students' perception of practitioners in their own field they were presented with a list of approximate characteristics (obtained from interviews) and asked to rate each in terms of its importance for a successful practitioner. Naturally enough the qualities mentioned by those in the field as characterising a successful practitioner all tend to be favourable ones. Thus there is no reference to those qualities which have been observed by critics outside the field : the pomposity of the doctor, the fastidiousness of the lawyer, the insensitivity of the engineer or the unbendingness of the teacher do not enter the list. After sorting the qualities mentioned, a list of 30, more than half of which could be applied to all four student groups, was used. The full list of items, which is reproduced in Table 5, may be classified thus :

Personal qualities	:	honesty, maturity, appearing confident, liking people, skill in communication, liking hard work, pleasing manner.
Sociability	:	many contacts, good relations with colleagues, active in the community.
Knowledge and skills	:	knows his speciality, good academic record, broad cultural knowledge, creative, administrative ability.
Status qualities	:	being married, a male, family connections in the profession.

There is considerable agreement between the Australian and English teachers, and within the English group between primary and secondary as to the characteristics of a successful teacher ; whereas there is wide variation between the professions. The only characteristics which differentiate Australia and England are "a broad cultural knowledge" and "a concern for the interests and well-being of the community" both of which are seen by more of the English student-teachers as important characteristics, and "a good academic record" which more of the Australian student-teachers rate as important. As might be expected the primary teachers emphasize "an interest in people" and the secondary emphasize "a good academic record" as important characteristics.

From these results the profiles of the previous section may be extended[1]. In medicine and law successful practitioners are much more visible than in engineering and teaching. Status attributes are generally not important, and least important of all in teaching. In engineering, law and medicine, being a male is said to be important by one-quarter of the students and being married is seen to be relevant in medicine and to some extent in law. Only one feature is common to all four groups : a successful practitioner in all fields has a thorough knowledge of the subject matter

(1) The items mentioned in each profile are those mentioned as "very important" by at least 50 per cent of students or 40 per cent in the case of engineers. The absent qualities are those rated "very important" by fewer than 25 per cent. Similar results were obtained when mean scores were computed from the ratings.

TABLE 5

Qualities which Students See as Important for a Successful Practitioner in their own Fields

	Per cent who rate the item as important[1]:					
	Australia				England	
	Engineering	Law[2]	Medicine[3]	Teaching	Second. teaching	Primary teaching
Personal Qualities						
Honesty and Integrity	36	79	78	57	58	63
Wisdom & maturity of outlook	22	59	64	50	41	40
An appearance of confidence	22	59	55	45	52	50
An interest in people	10	46	73	67	71	80
Being able to communicate ideas	42	64	42	91	90	89
A capacity for meticulous attention to detail	32	61	43	5	5	4
A capacity for sustained hard work	22	48	65	24	29	33
A pleasing manner	13	40	52	47	41	46
Sociability						
Many contacts within the profession	16	41	27	5	6	4
Ability to get on well with colleagues	31	40	33	37	34	39
A concern for the interest & wellbeing of the community	24	46	39	22	32	37
Knowledge and Skills						
A thorough knowledge of the subject matter of his speciality	69	77	86	64	51	32
A good academic record	9	21	5	5	3	1
A broad cultural knowledge	7	25	15	16	26	27
Having creative ability	45	-	14	30	44	40
High administrative ability	12	23	5	5	5	4
Status Qualities						
Being a male (1)	23	26	25	3	3	2
Being married (1)	6	13	28	3	8	5
Having a family background in the profession (1)	4	9	6	1	1	1

(1) Ratings were on a 5 point scale from "very important" to "not at all important". The percentages are for the very important category except for those items marked (1) where the percentage is for the top 2 scale categories.

(2) Law students were asked to rate judges, barristers and solicitors separately. The figures presented are the average of these three.

(3) Medical students were asked to rate G.P.s and specialists separately. The figures presented are for G.P.s.

of his speciality. This item is close to the basic attribute which distinguishes professions from other occupations, namely the mastery after long training of complex skills which are rooted in academic disciplines.

The distinguishing profile of the successful teacher is of one who is wise, honest, interested in people and able to communicate. Hard work and meticulous attention to detail are not part of the image, nor are cultural knowledge nor, surprisingly, a concern for the interests and well-being of the community.

The successful doctor, like the teacher, appears to be wise, honest and has an interest in people. In addition, however, he has a pleasing manner, an appearance of confidence and professional contacts. He is capable of sustained hard work and does show a concern for the interests and well-being of the community. Unimportant for the doctor are a broad cultural knowledge, creative ability and administrative skills. The lawyer shares honesty and wisdom with the doctor and teacher ; he is also able to communicate and has an appearance of confidence. He is the only one of the four who has a capacity for meticulous attention to detail.

The successful engineer has a "low profile" which conforms to the stereotype of one who relates to things rather than people. Personal qualities are not particularly visible except the ability to communicate ideas.

These profiles are remarkably stable over time. Stability was assessed both by the proportion of responses to individual items and by the way the items clustered together. The general trend, in all four groups, was for a small decline in the proportion of "very important" responses but for a strengthening of the association between items within the clusters of Table 5, with the core of the clusters remaining similar. It is as if during the training years the basic images remain the same but come to be seen in sharper focus. There are some changes : by fourth year in engineering the cluster of personal qualities - being honest, wise and hard working - had disappeared ; and in all three non-teaching professions the service components of the sociability cluster tended to be replaced by an emphasis on self-development, being creative and possessing wide cultural knowledge. The same sort of shift is observable in the cluster on skills : initially this comprised mainly technical skills but by fourth year it has expanded to include some personal qualities which were seen as part of a separate dimension in first year. Thus to technical skills are added a capacity for sustained hard work (engineering), wisdom and the ability to impress people (law), and dedication to the profession (medicine).

In these non-teaching professions the elaboration of students' images of the successful practitioner seems to parallel the development of professional self-confidence and the acquisition of professional values which has already been described. The expansion of technical attributes, by the senior students to include characteristics like "an appearance of confidence", "wisdom and maturity", and "being looked up to" are self-perceptions associated with the role of a professional who knows that he possesses esoteric skills, who expects the respect of his clients and who maintains a certain social distance from them so as to conduct his practice more efficiently.

No comparable changes in the structure of the student-teachers' image could be found and once again there is the question of why teachers are different. One possible explanation is that student-teachers are less in contact with their profession during training than the others. This, however, seems unlikely because in fourth year, when they have had a good deal of explicitly professional training and experience in teaching, there is still no change. Furthermore, little difference was discerned between student-teachers in different institutions - if contact with practising teachers had an effect on images of the successful practitioner this could be expected to vary, for example, with the different amount of practical experience the students had had. (Nor were there significant institutional differences within the other three professions. Even more remarkable is the close similarity in the amount of structural change in engineering, law and medicine). Another explanation is that there is, in engineering, law and medicine, a consensus about the successful practitioner - he exists and is seen to exist. In teaching this is not the case. Initially the beginning student-teachers use the same conventional categories as the others with which to depict the successful practitioner. This, however, does not become elaborated and refined as students near the point of becoming qualified teachers themselves because there is no consensus.

CHAPTER V

GENERAL AND PROFESSIONAL ATTITUDES

An attitude inventory was constructed to test some of the non-academic objectives which are held to be important in a university education (Anderson and Western, 1967). A combination of content and statistical analysis led to seven scales. A condensed definition of each is :

Intellectual interests	:	interest in art, literature, etc., and the life of the mind ;
Academic activities	:	interest in having a strong academic and research component in one's work ;
Social liberalism	:	belief that man should be free from constraints imposed by the community, e.g. through censorship and sexual mores ;
Political-economic liberalism	:	inclination to the left : government control and planning in the interests of a more just society ;
Pragmatism	:	preference for a practical rather than a theoretical approach to problems ;
Dogmatism	:	acceptance of authority and a tendency to pre-judge issues ;
Cynicism	:	denial of altruism as a motive for men's actions.

Students were tested at various times during a four year period, including during their first week at university. On each of the seven scales there were significant differences in mean scores between the faculties. The initial differences, which have been reported in detail elsewhere, may be summarised as follows : engineering was the lowest on intellectual interests, equal highest on academic activites and highest on pragmatism and dogmatism. It was also relatively low on both social and political-economic liberalism. Law was highest on social liberalism and lowest on political-economic liberalism and pragmatism. Medicine was equal highest on academic activities and lowest in pragmatism. Teaching was highest on intellectual interests and political-economic liberalism, lowest on academic activities and social liberalism.

Analysis of variance has shown that faculty differences are much more significant than university differences ; that is, an entering medical student in Queensland is more likely to have a set of attitudes similar to another new medical student in Melbourne, Monash or Western Australia than to a student in another faculty in his own university.

A possibility is that the association between particular attitude and professional faculty is a spurious connection arising from a common underlying variable, e.g. social class, which is in some way causally associated with both attitude and career choice. Another explanation may be that as early specialisation leads students in school through different educational tracks, depending on whether their university studies are to be science-based or humanities-based, subjects studied at school help form attitudes. For example the study of English literature, history and economics may give students greater intellectual interests and perhaps also lead to more liberal positions on political and social issues. These possibilities were tested by stepwise regression analyses in which all the background information (father's occupation, income and education ; mother's education ; religious denomination and behaviour ; subjects studied and subjects liked at school ; type of school attended ; age ; sex and birthplace) and faculty were entered as independent variables. The results are too complex to present in detail but certain trends are relevant here. The amount of variance explained by the initial seven analyses, in which all dependent variables were included, ranged from 39 per cent for social liberalism to 5 per cent for academic activities. In all analyses, with the exception of social liberalism, both faculty and a number of background variables were significant predictors of attitudes. The important predictor variable for social liberalism in a negative sense was active church membership, whether Protestant or Roman Catholic. The three faculties, membership of which predicted attitudes, were engineering, law and medicine, the pattern being consistent with the profiles described above. Teaching, however, was not a significant predictor in any of the attitude analyses(1).

It is as if the recruits to teaching do not have a clear professional self-image and that negative factors, for example failure to gain admission to the course of first preference, were important in the career decisions. Thus, as far as we have been able to test, the data support the notion that while career decisions are constrained by the educational and social framework they are also, in the case of engineering, law and medicine the results of students' matching their self-concepts with their images of the chosen profession.

Students change a great deal during their years of training. Not only is their knowledge of several intellectual disciplines advanced enormously but their general social attitudes change and their attitudes on specific professional issues begin to approximate those which are found in their professional culture. Taking the general attitudes of our seven scales first, all four professional groups on all seven attitudes change towards what might be seen as the university ideal. That is, students develop their intellectual interests, become less dogmatic, pragmatic and cynical, and less conservative with respect to both social and political issues. These changes are, of course, relative to the initial measures. It is of interest to note also that initial differences between the professions remain, for example, engineers do not "catch up" to the others in intellectual interests and they retain their greater dogmatism. Teachers retain their lead in intellectual interests and their polar positions on liberalism - politically to the left and socially to the right.

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(1) Thus the significant association found in the analysis of variance between teaching and certain attitudes disappears when the effect of background variables is allowed for.

Three trends emerged in the change of attitudes on professional issues. First, there is a clear development towards "profession-centredness" which can be summed up as autonomy in the carrying out of the professional task and, where there is a conflict of interest or a margin of doubt, a tendency for the profession to take precedence over any outside interest. Secondly, the general shift to political liberalism reported above is not paralleled in students' views of government in relation to their profession. In fact where the professional interest is involved students come to oppose government control in planning, denying that this would lead to a better service. Thirdly, in so far as professions can be compared, the teachers are the least concerned about autonomy.

These trends are derived from the analysis of a large number of items. Three illustrative ones and the response frequencies are reproduced in Table 6. Students were asked the strength of their agreement, or disagreement, with the proposals (i) that a professional should refrain from mixing socially with his clients, (ii) that training could be carried out better by an institution controlled by the profession than by a university and (iii) that new graduates are well equipped to practise their profession.

TABLE 6

Attitudes of Students in Four Faculties to Professional Issues

	Engineering		Law		Medicine		Teaching	
	per cent who agree							
	1st year	3rd year	1st year	3rd year	1st year	3rd year	1st year	3rd year
Alright for professionals to mix socially with "clients"	62	55	18	6	42	30	a 37 b 25	30 19
Training by professional institution better than university	7	25	9	30	20	29	34	56
New graduates are well equipped to practise	27	14	14	2	41	21	41	25

(a) with parents, (b) with students.

In each of the first three groups there appears to be a growing recognition that there may be a conflict between the professional role and a social role. Engineers, who deal with things more than with "persons", seem less concerned about the possibility ; law students, whose profession requires them more than any of the others to know about moral issues in clients' personal lives, seem the least willing to meet their clients socially. In the first year only 18 per cent of the lawyers thought lawyers should do this, by third year only six per cent did so. There is a slight decline in the proportions of teachers who thought it in order to mix socially with parents (initially 37 per cent) and with students (initially 25 per cent). It should be remembered that, as distinct from students in other professional faculties the student-teachers have

had little training that is specifically professional by their third year, nor are they in classes comprising only students preparing for the one profession. After third year they encounter practical and theoretical studies in education and the proportion supporting the idea of social mixing with parents drops to 10 per cent. On the other hand social mixing with school-students continues to be endorsed by the same fraction as in first year.

All groups move towards the idea that training might be better carried out by an institution linked with the profession. This view is consistent with students' early desire for reforms in training, that there should be a large professional component included and that the quantity and quality of practical training should be improved. These opinions were also found in the interviews with advanced students. Nonetheless, only in teaching is disenchantment with university training expressed by a majority of students, and perhaps this reflects the difficulties which university teacher educators have in defining the nature and content of professional training. As might be expected from the comments on training, students lose some of their early confidence that upon graduation they will be equipped to practise.

Responses to a large number of issues which are fairly specific to a particular profession confirmed the general finding that in engineering, law and medicine a distinct shift occurred towards a profession-centred interest as students moved into the senior years of their courses. What was initially perhaps unrealistic idealism seems to be being tempered, if not replaced, by a strong degree of realism. In some U.S. studies of medical students, for example, Becker and Greer (1958), this development has been reported as a growth of cynicism. However, in this study a specific measure of cynicism showed all students become less cynical[1]. What seems to be happening is that the students come to recognise that in order to maintain a service to the community

(i) a profession must be protected from outside interference,

(ii) a professional cannot spend endless time on one job or with one client,

(iii) the profession should be the major party in defining the public interest, and

(iv) professional squabbles must not be allowed to undermine public confidence.

Mixed in with these attitudes and almost impossible to disentangle from some of them is and element of personal self-interest.

All three groups retreated from the idea held initially by a majority that there should be any public criticism of a colleague's work. The majority response to a situation in which another professional was behaving incompetently or unethically

(1) A person who scores high on this scale is "one who has a predisposition to account for men's behaviour in terms of their personal satisfactions and interests. He does not take the actions of others at face value, and denies altruism, cooperation and responsibility as motives".

was either to do nothing or have a word with the man in private. A parallel retreat from idealism concerned quality versus quantity. Engineering students were initially inclined towards the idea that "utmost reliability of work should be achieved, irrespective of cost". By third year only four per cent strongly agreed with the proposal. In law and medicine shifts to realism took place. Most law students for instance initially believed that "a solicitor should pay meticulous attention to detail even if this is going to reduce the number of clients he can see". By third year only one-quarter supported this position.

We have noted in discussing motivation that medical students, along with teachers, were more devoted to community service than either engineers or lawyers. This attribute is maintained in the medical students' general approach to patients' interests. For example, the idea that "a doctor should never let his own interests outweigh those of a patient" was still endorsed by a majority in third year. On the other hand, the "fee for service" notion was catching on and there was a doubling of the initial 20 per cent who believed "that it is an essential feature of the doctor-patient relationship that the doctor should receive a fee from the patient for his services".

The position with the student-teachers is more complex. Up to the end of third year there was little evidence of comparable shifts to a profession-centred position. For example, less than one-third believed that the profession should speak out on controversial educational issues in public - the proportion remained the same in third year as it was at the start. A similar constancy of attitudes characterised relations with students, parents and colleagues.

After fourth year, when professional studies had been experienced, there was a sharp move towards the idea of professional autonomy, for example, in teachers designing their own syllabus, in conducting their own examinations and in speaking out on controversial issues in public. On the other hand, no clear trend emerges in which the position of the teacher is protected from "clients", for example, criticism from parents or students. A little over half the fourth-year students believe that a teacher should never discuss another member of staff with a student, the same as in first-year. Although there is a sharp decline in those who believe that it is in order for teachers to mix socially with parents, only a small minority believe that a teacher should always defend colleagues against parental criticism.

Although in a later section where concurrent and end-on courses are discussed the idea of students moving to a profession-centred position is used, the general results from the present analysis made us dissatisfied with the theoretical framework. No matter what observations were used the acquisition of a common professional culture, which was evident in the other three faculties, could not be found among the student-teachers.

One difficulty should be obvious from the few examples which have been given. In the case of engineering, law and medicine there is a "client" who is clearly discernible. Even in the non-personal-service profession of engineering the client if not an individual is probably a government department or an industrial firm, etc. This

remains the case when the professional himself is employed - loyalties may be more complex but "the client", "the profession" and "the public interest" remain discernible entities. But in school-teaching who is receiving service ? Is it the pupil, his parents, the school, the education department, or, in some vague way, the community ? Whichever answer is given there are difficulties. If the pupil, then he is not accorded the rights and deference usually accorded to a client ; if the parents, then they are likely to be unaware of the aim of the service being provided and they too have severe limitations on their rights.

Another indication that we were not asking the right questions in our study of teachers was the large proportion of students who told us (in answer to a subsidiary question paired with every main one) that they had not thought about the issue before. For example, the questions about mixing socially with parents and pupils were novel to over four-fifths of even the fourth-year students. This clue, together with the sizeable proportion of student-teachers whose reasons for entering teaching were negative ones, suggested that our sample should be classified according to some measure of commitment to teaching before seeking to understand the impact of training.

Another problem was the concern which a large number of the student-teachers expressed about the standard of education in schools : only a handful were prepared to say it was really satisfactory. This, together with the difficulty the student-teachers had in describing the image of a successful teacher, also made us realise that the idea of a professional culture and students being socialised for it was not satisfactory. Among the law, engineering and medical students there was concensus about important elements of the professional culture and also a general satisfaction with existing standards.

These reflections on the data led us to seek a more satisfactory analytic framework for attempting to understand the student-teachers. Two dimensions appeared to be of over-riding importance : commitment to teaching and traditional/radical orientation to practice. Similar variable did not seem necessary in the analysis of the engineering, law and medical students, few of whom had a radical orientation to their profession. Also, with the exception of law, the vast majority seemed highly committed to professional practice. The exceptions among the lawyers were not so much those who entered for negative reasons but those who saw the legal profession as a stepping-stone to something else. Commitment to teaching is indicated by intention about future work : in the class-room, in education but not class-room teaching, or out of education altogether. Orientation to educational practice ranges from the acceptance of the present state of affairs in schooling to the belief that radical changes are necessary. These categories may be ordered on the dimensions of commitment and orientation. By combining the two a typology of student-teachers can be formed[1], This may be illustrated in a table in which the polar types are used (Table 7).

(1) This typology owes a great deal to discussions with Dr. Colin Lacey (University of Sussex) whose own longitudinal study of student-teachers in several English universities led him to a similar perspective.

TABLE 7

A Typology of Student-teachers

		Orientation to educational practice	
		Traditional	Radical
Commitment to teaching	Committed	1	2
	Uncommitted	3	4

As with most typologies a good deal of the diversity and complexity of the real situation is missed out. Also, of course, there will be some whose commitment changes, and some who are traditional in particular things, and radical in others. Nonetheless, the students did differ among themselves in both commitment and, in a consistent way, with respect to many things which should be changed. By exploring further with typology it might be possible to modify in a useful way the theoretical perspectives which proved effective for the other professions. If, as is suspected, the retention rate is different for each type some understanding of them may lead to new policies.

Committed - Traditional

This group is the largest among students who have survived to fourth-year, and it contains the student-teachers who may most readily be compared with the students in law, engineering and medicine. They are the professionals who were attracted by the idea of classroom teaching and see it as their life's work.

The "committed-traditional" may have a parent who is a teacher or may have been influenced towards teaching because of admiration for a particular teacher at school. His career decision was probably made at a relatively young age. He will be a middle to low scorer on the liberalism scales and above average on dogmatism.

His conception of schooling is one in which the maintenance of good order and discipline is essential. The role of the pupil is seen as being submissive to the authority of the teacher and school. With older pupils his relation may be a benevolent paternalism, but it is still basically one of dominance. The committed-traditional will come to place considerable importance on the autonomy of the teacher in relation to those things which would threaten his class-room security. Parents also must be kept in their place, which means meeting them on specially arranged occasions rather than informally. On the other hand, the teacher in this category accepts the authority of the education department and has no strong desire to innovate in things like curriculum or school organisation.

The retention rate is highest among the committed-traditionals because high commitment is complemented by the opportunity for job satisfaction.

Committed - Radical

The exemplar of this type is often found in the community or progressive school ; satisfaction comes from working with children but not with the custodial aspects of the traditional role. The group would include some who resign from teaching because of what they regard as "authoritarian direction" by the education authorities or distaste for the traditional role of a successful class-room teacher. Some others escape to administrative positions early in their careers. They find it easy to establish informal social relations with parents and senior pupils.

Student-teachers of this type are critical of many existing practices and responsive to new approaches. A few have chosen teaching because they want to improve things, but most have come to their radical position during training. Of all four types these have been most responsive to the university environment and have changed most.

Among the committed radicals are the innovators and those who adapt most readily to innovation, for example to team-teaching, non-graded schools, open class-rooms and the use of teacher-aides.

Uncommitted - Traditional

In this group are those who after leaving school preferred to go into higher education rathen than start work, but who had no strong preference for any one course. Their motivation is rather nagative, class-room teaching seemed not too unattractive an occupation. They may spend a few years in teaching and then move into something else because the satisfactions of class-room teaching do not compensate them for its difficulties. They have no interest in changing the system. If they do stay in education it will perhaps be in administration. Work as a vocational guidance or careers officer, however, is appealing to them but not the non-directive approach.

A particular sub-group of uncommitted-traditional comprises some women who envisage raising a family at some stage. Teaching is an appealing occupation because leave can be readily arranged and hours and holidays of the job will coincide with those of school-age children. Blanche Geer's (1966) paper on occupational commitment and the teaching profession contains a detailed account of this problem.

Uncommitted - Radical

Although their reason for entering a course leading to teaching may be much the same as the uncommitted-traditional, those members of this type who stay in education will seek opportunities to reform the system. They will be critical of orthodoxy and inclined to engage in public controversy on matters of educational policy. Those who find careers in education will probably end up in social research or in policy making. For them education is a means to social change, for example as a means of equalizing social inequalities. The uncommitted-radical is a high scorer on the scale of political liberalism. The paradigm might be the de-schooler.

While the typology will clearly need refining the two main dimensions of commitment and orientation to change are central to the problem of staffing schools today. With it we can illuminate the problem of recruiting, training, retaining and placing teachers. It directs attention to some alternatives to traditional schools and suggests approaches to the staffing of educational innovations.

CHAPTER VI

INTERNATIONAL COMPARISONS

So far recruits to three other professions have been used as a mirror with which to view the student-teachers. Another perspective is possible by comparing them with teachers-in-practice. The image turns out to be somewhat different.

The comparative data are from an international study of teacher roles made in Australia, New Zealand, United Kingdom and U.S.A. by Professor B.J. Biddle and his associates. Sixteen of the same questions which were answered by large samples of practising teachers in these four countries were put to the student sample in the first, third and final years of their studies[1]. A summary of the results is presented in the graphs which appear on the following pages.

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(1) The sample sizes in the international study were Australia 2691, England 2540, New Zealand 2138 and U.S.A. 4894. The sample was chosen so that there would be equal numbers of men and women, of primary and secondary school-teachers, and of teachers in three broad school sizes in each school level. Non-comprehensive secondary school-teachers and teachers in schools not forming part of the public sector of education were excluded from the sample.

The items referred to in the present report were all cast in the form of a question about educational practices asking the respondent to indicate his degree of approval or disapproval. The response was given on a 7 point scale : Strongly approve, Moderately approve, Slightly approve, Neutral, Slightly disapprove, Moderately disapprove and Strongly disapprove. In the tables and graphs showing student opinion at different stages of their courses the combined percentage responding "Strongly approve" and "Moderately approve" are presented. This division is the one which was generally closest to the median. Mean scores were not computed because distributions were frequently skewed.

The main drawback to comparing the student and the teacher sample is that the students were all initially destined for secondary teaching (although up to 10 per cent may in fact become primary teachers) whereas the teachers were 50:50 primary and secondary. The exact bias due to this imbalance is unknown but there is evidence that it may not be too great. First, the U.K. data, used elsewhere in this report, which is for both primary and secondary teachers, shows that in motivation and in their images of the successful teacher there are only small differences between the two groups. Secondly, the differences between student-teachers and practising teachers which are treated as significant in the following discussion are so very large that it is most unlikely that they could be accounted for by the primary component of the teacher sample. Finally other studies have shown that on variables similar to ones which we will consider primary teachers tend to be less traditional and more permissive than secondary teachers. This conclusion is reached by Kelsall and Kelsall (1969) after reviewing a very large number of studies of teachers' attitudes. Thus when primary student teachers are removed from the comparison the differences between students and teachers may be even greater.

Professor Biddle and his colleagues have been particularly generous in providing complete distributions for each country of the responses for the items which have been used in this report. Their own report on the international study is to be published later this year. First reports of the results of this survey were contained in papers given at the Australia and New Zealand Association for the Advancement of Science conference in January 1968, and at the British Association in Dundee in August 1968. Further details are contained in Adams, R.S. et al.(1970).

The differences between the students and the practising teachers is so large on many of the items that the idea of a generation-gap has some credibility. Opinions expressed on two out of every three of the topics show the fourth-year student-teachers clustering towards the "liberal" extreme and the teachers-in-practice towards or at the traditional extreme. There are some national differences between practising teachers but these become comparatively insignificant alongside the positions of the student-teachers, and it is usually possible to compare the students with the teachers without having to distinguish the nationalities of the latter.

In order to increase the reliability of interpretations a cluster analysis was made of the students' responses. The items were grouped into three domains, each representing an orientation to education and labelled for convenience as "modern", "traditional" and "functional". The labels are a rough description of the position of a respondent who is in agreement with the propositions in each domain. When the items are classified this way there is a consistent pattern of change within each cluster of the students in relation to the teachers. Only in modern education is there a similarity between the student-teachers and the practising-teachers. (Table 8).

TABLE 8

Items Reflecting a "Modern" Orientation to Education

	Per cent registering more than slight approval	
	Fourth-year student-teachers (n = 527)	Australian teachers (1) (n = 2691)
Child-centred education	59	66
Use of school psychologists	63	57
Co-educational schools	89	77
Offering different types of education and skills to suit pupils with various social backgrounds	51	58
Experimenting with classroom techniques	86	88

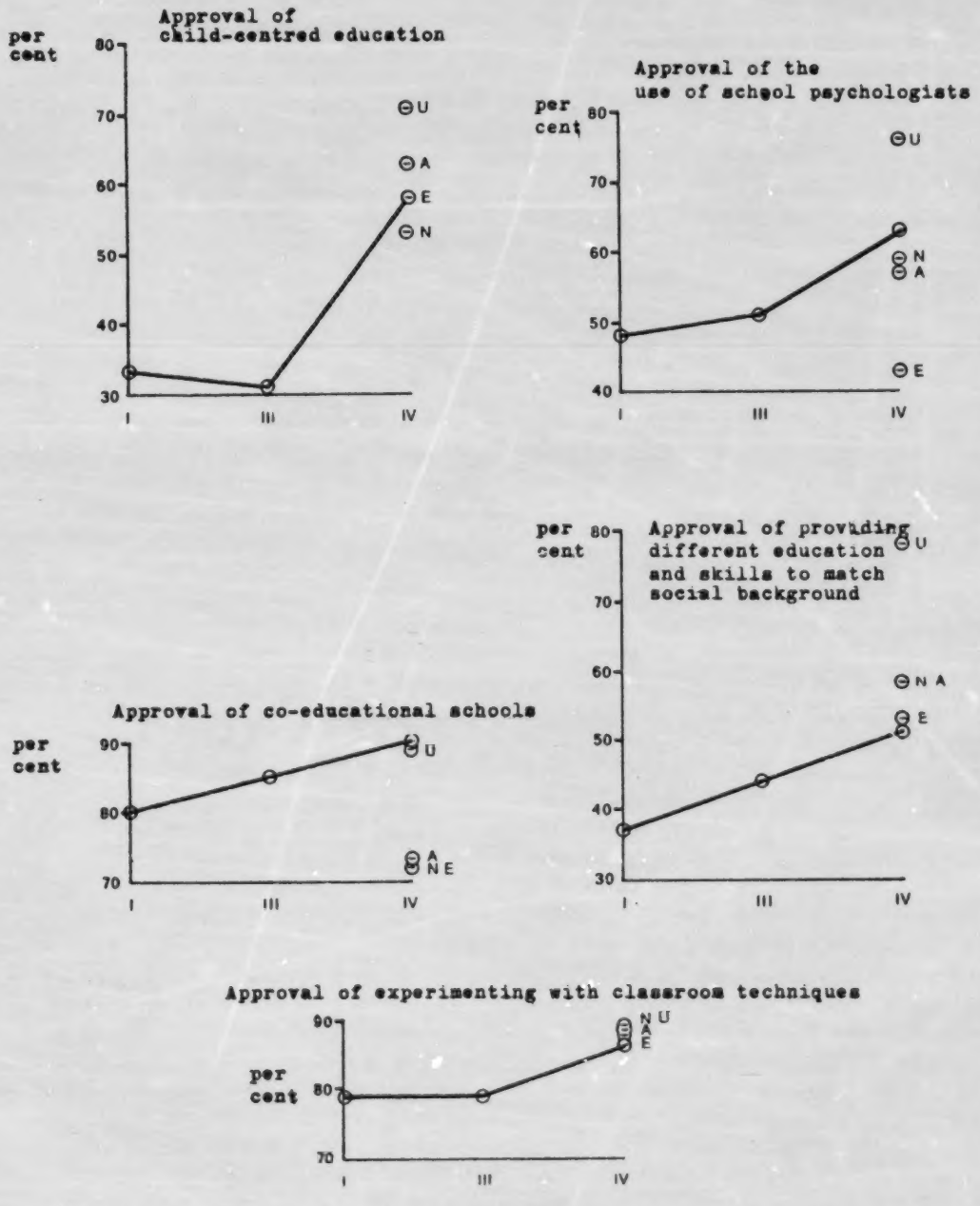
(1) The corresponding percentages for the English, New Zealand and U.S.A. teachers may be read from the graphs.

The "modern" cluster contains approaches and topics - child-centred education, use of psychologists, experimentation, etc. - which would be emphasised in teacher-training courses and which would be endorsed now by a majority of teachers although a generation ago this may not have been the case. The fourth-year student position is not grossly different from that of the teachers on any of the items in this cluster, the largest difference being with respect to co-education which is favoured more by the students than the teachers.

The graphs show the position of the students towards the end of first-year, in the middle of third-year and towards the end of fourth-year. For reference

Graph B

Approval of "Modern" Approaches



——— Students in First (I), Third (III) and Fourth (IV) Year.

● Practising teachers : A : Australia, N : New Zealand,
E : England , U : United States.

the proportions of the four national groups of practising teachers has been marked alongside the fourth-year students' position. In all cases except co-education the students start off with a more "conservative" attitude than that of the practising teachers but by fourth-year they have "caught up".

There are not unexpected differences between the practising teachers in different countries. For example teachers in the U.S.A. are most in favour of co-education and the use of psychologists. During their courses the Australian students move towards the position of teachers in the U.S.A. What we are probably seeing in the regular trend of the graphs is the influence of both the university environment and the emphasis in teacher-education courses on students who were initially rather conservative. This conservatism is probably a reflection of the students' own experiences as pupils in schools where modern practices were less evident than formal, bookish teaching designed to get the best possible examination results. By their final year the term "child-centred education" has some meaning for them, they are familiar with the contribution of psychologists to education and they have been taught a great deal about the value of experimentation in education.

The next cluster to be considered contains "traditional" items. These represent an approach to school organisation and to the problem of maintaining order in which the teacher's dominance is stressed (Table 9). This approach is frequently and somewhat inaccurately referred to as authoritarian. Unlike the other two clusters these items are about things which teachers do to pupils. Pupils must be made to show respect to teachers, corporal punishment is not ruled out and learning is promoted by ability grouping and homework. Generally these approaches would not receive much attention, let alone endorsement, in the professional lectures and classes attended by student-teachers. The one exception to this is ability-grouping, about which there is a good deal of controversy among teacher-educators. In practice-teaching, which for most is not until fourth-year, students may encounter some of the more authoritarian practices which are adopted by teachers to maintain order and to reach examination-oriented objectives. Any effect of this practical experience is, however, not evident in the data. The fourth-year students hold attitudes about every topic which are very different from those of the practising teachers. In every instance the students are more "progressive".

The pattern of change is the reverse of that for the modern education cluster. Initially the students' position is slightly more progressive than that of the teachers (except in the case of homework where the first-year students actually favour it more than the teachers) but by fourth-year the students have moved to positions which are in every instance far away from the teachers.

The traditional education items are negatively correlated with an independent measure of social liberalism[1], and the pattern of change of the student-teachers on traditional education is closely parallel to the increasing social liberalism which marks all student groups - engineers, lawyers and medicos as well as teachers. The obvious inference is that the general university environment contributes to greater

(1) For a definition of this scale see p. 35.

TABLE 9

Items Reflecting a "Traditional" Orientation to Education

	Per cent registering more than slight approval	
	Fourth-year student-teachers (n = 527)	Australian teachers(1) (n = 2691)
Use of formal or respectful titles by pupils	62	91
Corporal punishment for boys	14	52
Corporal punishment for girls	5	14
Insistence by teachers on respect from pupils	67	91
Grouping pupils on the basis of ability	25	78
Regular and ample homework to pupils	33	55

(1) The corresponding percentages for the English, New Zealand and U.S.A. teachers may be read from the graphs.

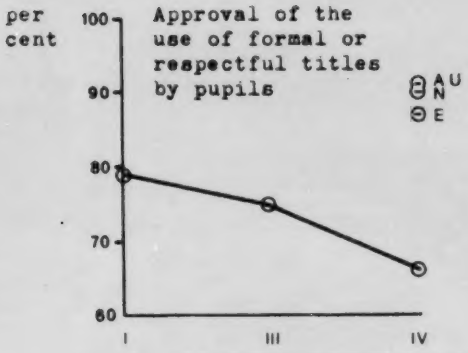
liberalism, on professional as well as general issues. There is, of course, the possibility that the change is one which marks all young people of that age and has little to do with the university experience. This hypothesis cannot be tested directly from the data. The possibility of university influence is supported by the fact that students who are in the concurrent course, and who do not mix in the university environment as much as the other student-teachers, do not change as much in their social liberalism.

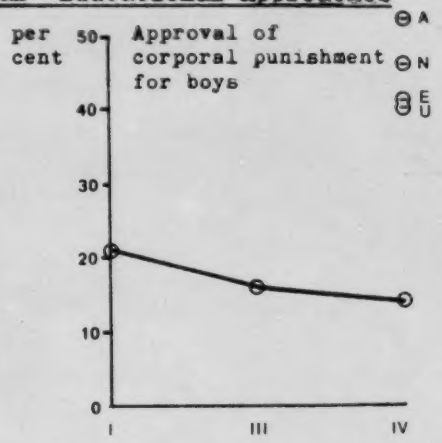
The key question, of course, is whether the students will change when they become teachers. It has not yet been possible to organise a follow-up to see if the trends away from authoritarian stances are maintained in practice. There are quite strong reasons for suspecting that those students who remain in teaching will, in fact, become more like the practising teachers they were so different from when they were tested in their fourth year.

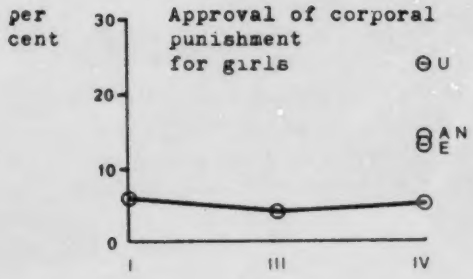
We were assured by our school-teacher informants that "work-hardening" would indeed occur and that after two or three years the young graduates who remained would have adopted practices which we have called authoritarian. "It happened to us, and it will happen to them". "If they don't change they'll be killed". The interviews made it clear to us that change would be induced not only by the need to survive in the classroom but also by pressures from the common-room. Older teachers do not like young reformers rocking the boat ("one teacher can upset the discipline of the whole school") and there are subtle ways of bringing the new teacher into line with traditional approaches, even though his reforms do not run beyond his own classroom. This general view that students with "progressive" ideas will become authoritarian in practice is

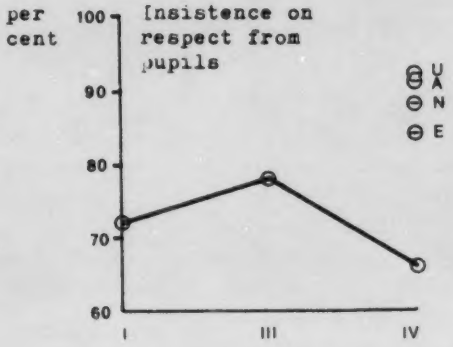
Graph C

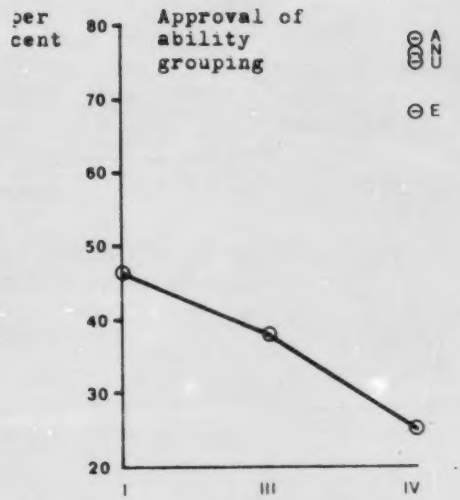
Approval of "Traditional" Educational Approaches

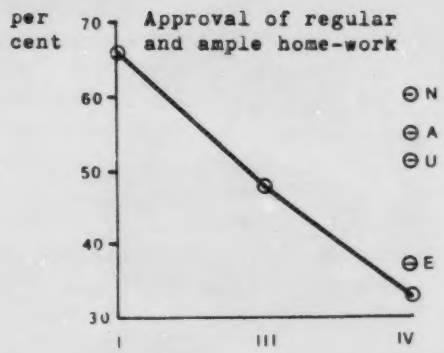












so prevalent among teachers, and its implications are so serious, that an attempt at analysis of the context of teaching is required.

Central to the task of teaching is the social relationship between pupil and teacher, but this is by no means an equal relationship. Pupils are at school because they have to be. Some may choose to attend but, up to the compulsory leaving age there is no legal alternative, and beyond this there are strong parental and social sanctions against leaving. Once enrolled, regular attendance is required of all students, backed by the threat of expulsion in the case of those over the compulsory age. And within school orderly behaviour is demanded. Pupils must attend classes on time, must submit assignments on time, must conform in dress and behaviour and so on. In the traditionally organised school a good deal of regimentation seems unavoidable. Some see in this a means of socializing students for future roles in a bureaucratic society. The way in which learning opportunities are structured - by the timetable, by period bells, by classroom walls - carves the school day into a set of topic-time-space blocks which demand from the learner an extraordinary degree of mental and physical orderliness. In this context the relation between teacher and pupil is one of dominance - submission and one which is never too secure. The legal and physical sanctions which back the teacher's authority are not frequently called into action. Day to day dominance depends on personal qualities - an ability which enables even the most permissive of teachers to switch rapidly from a sort of equality to dominance should order be threatened. These personal qualities are the outcome of professional socialization.

Willard Waller's analysis of what teaching does to teachers shows how a teacher's personality is moulded by the social relationships of the class-room. The process is an adaptation necessary for survival. The "stiff and formal manner", the "false dignity", the dogmatic views, the didactic tone are traits which have survival value in the occupation but which spill over into general life as the role hardens.

A similar process was suggested by Guba, Jackson and Bidwell (1963) to account for the results they obtained from a study of school-teacher personality in the United States. The teaching experience seemed to them to produce a pattern that was present in all teaching groups regardless of academic background and type of teacher-training. They speculated that, "somehow, through educational experiences, the initial personality differences of teachers coalesce into a common personality pattern. Whether or not this process occurs by genuine change in nonconformist personalities, or by attrition as nonconformists drop out, remains a moot question".

Elements of the qualities described by Waller could be detected in our students even at the start of their university courses. It was as if there were a self-selection occurring from a matching of oneself with the occupational stereotype. Under the influence of the university experience there is a decline in authoritarian and dogmatic attitudes and an increase in liberal ones, but, if our informants and Waller's Procrustean theory are correct, the trend will reverse. Specifically, under the bleak realities of class-room practice and so as to survive, the teacher will have to insist on a social distance from pupils because genuine equality in personal relationships would be abused by some and threaten order. Arbitrary judgements and the threat of punishment will be unavoidable if the teacher is to maintain dominance. The pressures

from public examinations, ambitious parents and, the root of it all, a competitive society, will lead the new teacher to enforce more rote learning, give ample homework and sort pupils into "ability" groups. The idealism and progressive attitudes of the young teaching graduate will change for the same reasons as the idealism of law and medicine students is changed - so they can cope with the demands of professional practice.

Throughout this discussion variations within groups have been ignored in order to make generalizations. As a reminder that particular attitudes do not always characterise every individual or even vary along a normal curve, the distributions for practising-teachers and student-teachers on two of the traditional items are presented in graphical form. (Graph D). In the case of requiring pupils to use respectful titles the distributions of both students' and teachers' attitudes are skewed very strongly towards the traditional extreme. Although the proportions giving more than moderate approval to the item are very different, it can be seen that only a relatively small change on the part of a large number of students would bring them into line with their elders. It seems very likely that the demands of practice could easily produce this small change.

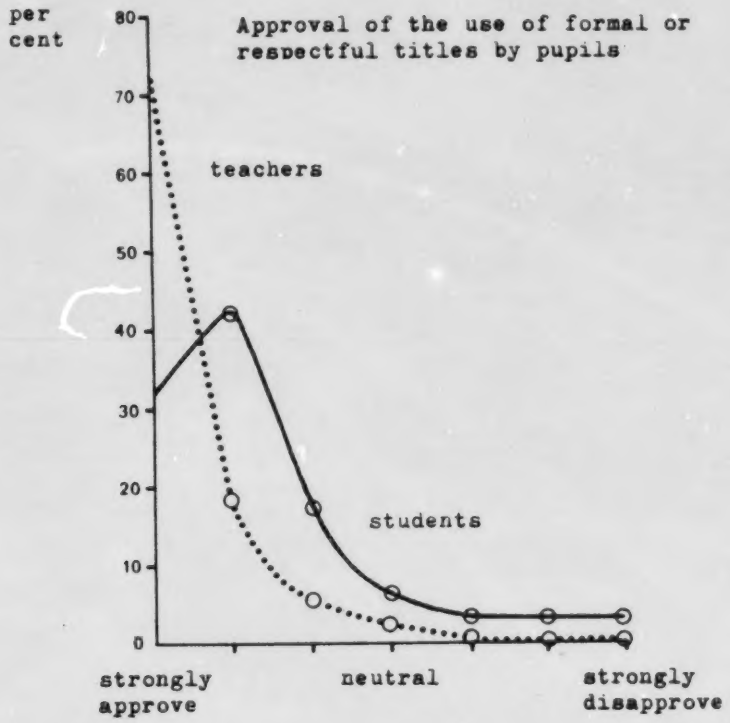
On the other hand students' attitudes to corporal punishment and ability-grouping (not illustrated) are distributed in a bi-modal fashion whereas the teachers' distribution on each of these variables is very strongly skewed to the traditional extreme. In this instance it would require a very large change in emphasis by about half of the group for the students to become like the practising teachers. Circumstances in traditional schools might be such that these massive shifts will occur. Later in the report we shall discuss some "progressive" schools where the necessity to maintain order and the establishment of teacher dominance do not exert such an over-riding influence on teaching and learning.

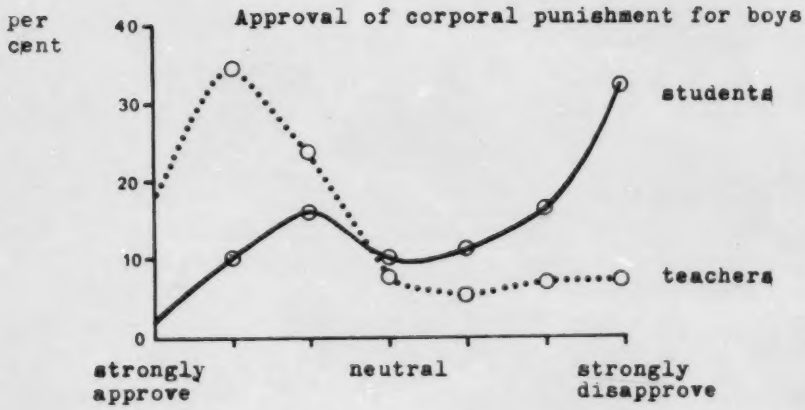
There are alternative adaptations to the theory of personality-moulding which must be considered. In the theoretical introduction it was observed that there are four general strategies open to the recruit to any profession whose attitudes and values turn out to be incongruent with the realities of practice. He may drop-out of the job or training ; he may seek positions within the profession where the conflict will be minimal, for example in administration or research ; he may try to change the conditions of practice ; or, as we have been speculating, he may adapt his personality to match the demands of the job.

We do know something about the extent to which the first two possibilities are taken up. We have seen that more than one-third of the recruits had dropped-out before training was completed. About half of these had some failure in their academic record, the remainder had good records. Of those who remained to fourth year, 13 per cent said their life's work would not be teaching ; one-quarter were still undecided which area of education they would work in (if any) ; and 20 per cent said that their life's work in education would be in someting other than class-room teaching, for example, in research, administration or teacher-education. Over the four years of the course there is a general retreat from the intention to make a lifetime career of class-room teaching until only 41 per cent of the students surviving to fourth year nominate this role.

Graph D

Distributions of the Responses of Students and Teachers to Two Items from the "Traditional" Cluster





The information we have collected from student-teachers over the years enables us to test the hypothesis that the students who drop-out and the students who seek careers in education outside the class-room, had initial attitudes which were inconsistent with those which will be required for survival in practice. The data from the international study provide an exact comparison, assuming, that is, that the attitudes of the practising teachers are indicative of practices necessary for survival. The results are in accord with expectations. The response of students to the items belonging to the traditional cluster were cross-tabulated against vocational destiny, class-room teaching, other careers in teaching, intention to leave teaching, and already out of teaching. The groups of students expressing the more authoritarian attitudes (concerning pupil respectfulness, punishment, ability grouping and homework) contained the highest proportions who seemed destined for class-room teaching the lowest proportion who had left or intended to leave teaching. Those who intended careers in research, teacher training or administration had authoritarian attitudes in between those of the class-room teachers and the drop-outs. The results are highly significant, both statistically and in fact.

The third cluster of attitudes to be analysed has been labelled "functional" because three of the topics represent the viewpoint that the purpose of schooling is to prepare students for entry to society - for jobs, or to conform to society and be aware of obligations to it (Table 10). Despite the vagueness of the items they were strongly inter-correlated and clearly tapped a consistent underlying attitude held by students who perhaps are influenced by the counter-culture. The items on church attendance by teachers and emphasising religious education are substantively of a different order : they are left in this cluster because they correlate with the other items ; also, the independent measure of social liberalism, which is negatively associated with all items in this cluster, correlates with the strength of students' religious belief and the frequency of their attendance at church. Roman Catholic students tend to have higher scores on these items (and are lower on social liberalism) than others ; however the Protestant students whose attendance and belief match that of the Catholics exhibit similar attitudes. Thus it would seem that religious students, whether Protestant or Catholic, display a sort of puritan ethic in which the duty to work and obligations to the social order are exhibited.

Unlike the "traditional" cluster none of these items concern the personal relationship between teacher and pupil, rather they reflect teachers' values about the purpose of school and about religion. Nonetheless, the gulf between the teachers and the students in their fourth year is consistently large, and change over the years is similar to that observed for the "traditional" items. Initially students are like the teachers in one respect : over 70 per cent would emphasise the importance of preparing students for jobs. There is, however, a rapid falling away from this view. In the other components of the cluster the students start out much more "liberal" than the teachers and move further away, the greater part of the change being in the later years.

TABLE 10

Items Reflecting a "Functional" Orientation to Education

	Per cent registering more than slight approval	
	Fourth-year student-teachers (n = 527)	Australian teachers(1) (n = 2691)
The preparation of pupils for future jobs	42	77
Emphasising to pupils their obligations to society	50	84
Emphasising religious education	11	43
Emphasising the need to conform to society	7	51
Regular church attendance by teachers	6	37

(1) The corresponding percentages for the English, New Zealand and USA teachers may be read from the graphs.

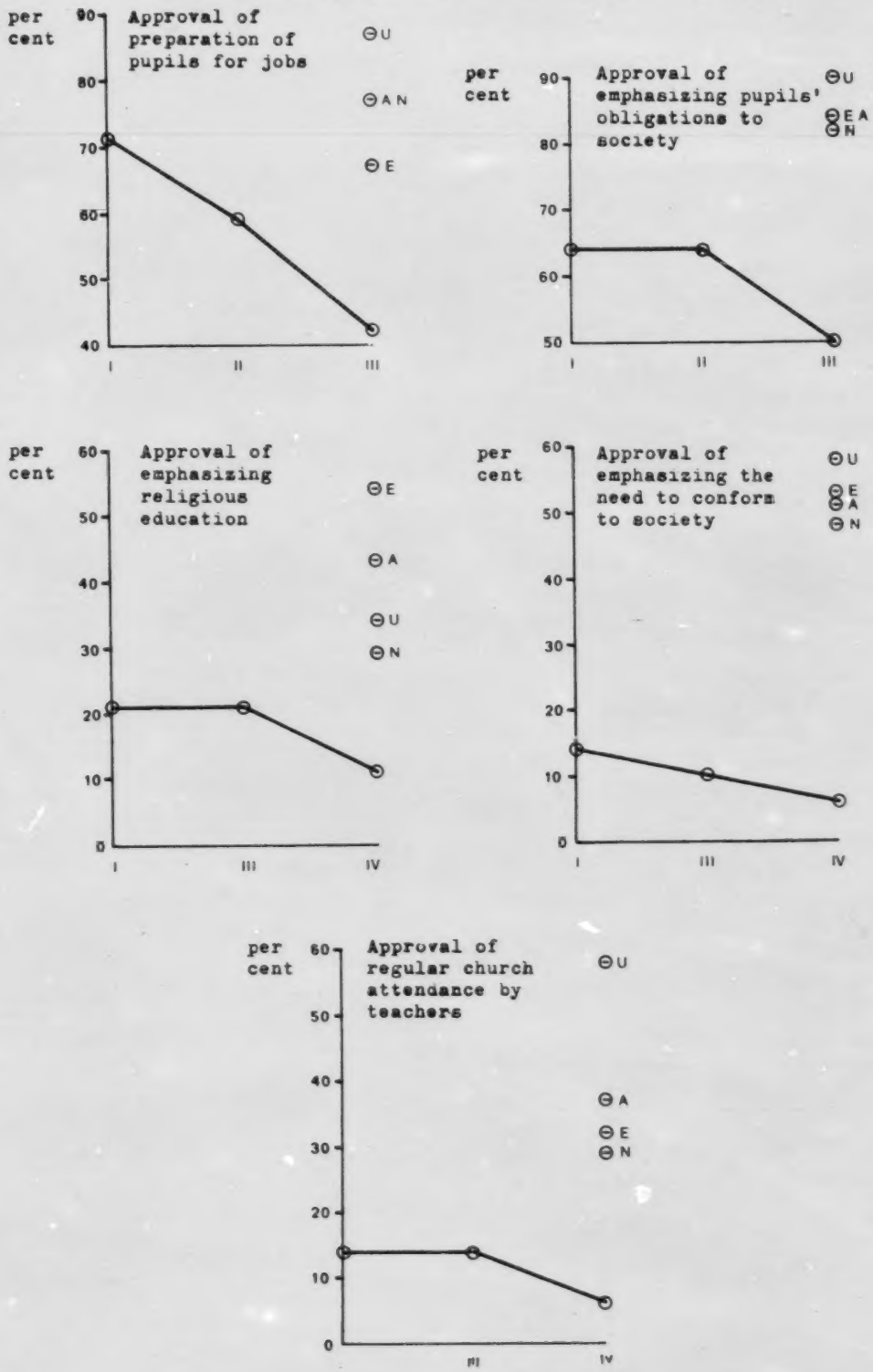
Once again it is possible only to surmise about which agencies might produce these changes. As with the traditional orientation to education, the change is paralleled by the change in social liberalism, and the general shift is found in other students as well as the teaching students. The fact that students' church attendance and strength of belief also change in a similar fashion suggests that religious outlook may be in some way at the back of the standpoints maintained on educational and social issues. In order to check these possibilities change on social liberalism was related to initial religious position and it was found that the more "religious" student changed least. A connection such as this is not sufficient evidence for the inference that religion prevents students from changing attitudes. It could be, for example, that students who are initially more religious spend more time outside the university and are therefore less exposed to its influences. Checking this out, we did find that students who maintained other connections from their past - old school societies, sporting clubs, residence with family - also tended to change less.

We will see in the next section that students who spend more time in a teachers college environment and therefore less in the university also tend to keep traditional and functional attitudes. The same can be said for students whose commitment to school-teaching is strongest. Similar associations are also found among engineering, law and medical students. It is as if students who remain connected most strongly with their past (family, church, school), or who become strongly connected to their future (commitment to be a teacher, etc.), are the ones least open to the liberalising influences of a university education.

Will the students become less liberal and more functional in their view of education and society after they start practising ? There is less reason to

Graph E

Approval of "Functional" Educational Objectives



expect a regression in these attitudes than there was with the traditional orientation because they are not intimately connected with class-room practice and the teacher-pupil relationship. Furthermore, the difference between the student group and the teachers is massive, as may be seen from the graph of the distribution of attitudes requiring students to conform. It would require a very large shift on the part of a majority of students before they matched the teachers[1]. On the face of it, there does seem to be a real generation gap represented in these differences.

To suggest that these student-teachers hold the values of the counter-culture would be to exaggerate beyond credulity. There is virtually nothing in their behaviour which indicates an interest in the psychology of alienation, oriental mysticism, psychedelic drugs, community living. Such a culture embraces only a small minority of the young. Nevertheless, there are influences which extend to even the most socially conservative of students, a category which includes student-teachers. We have already seen evidence that they tend to reject materialism and social prestige as values. On the other hand, there is an emphasis on increasing self-awareness and an interest in better understanding of others. In the exact comparison with practising teachers the student-teachers reject ideas which have been central to traditional schooling : for them, schooling is not mainly a preparation for jobs, it is not to produce people who will conform to society, it is not to stress obligations to the existing order and it is not to teach religion. These differences are so large, and reflect the position of so many students, that it makes sense to speak of a generation-gap. We are speaking of students who are among the most socially conservative in the university. They are not the flamboyant adolescent rebels whose iconoclastic displays will later be replaced by solid middle-class conservatism. As with members of the counter-culture, it is easier to discover what these students reject than it is to discern what their objectives are. At this stage their aims appear, somewhat hazily, as a respect for the individual student and his right to be different. When they enter traditional schooling, where the maintenance of order is a dominating concern, those of the group who remain in teaching will probably become more traditional in their school-room practices as has been predicted by our school-teacher informants. It is also possible that their anti-functional view of education may be eroded, although there is no obvious reason why this should be so.

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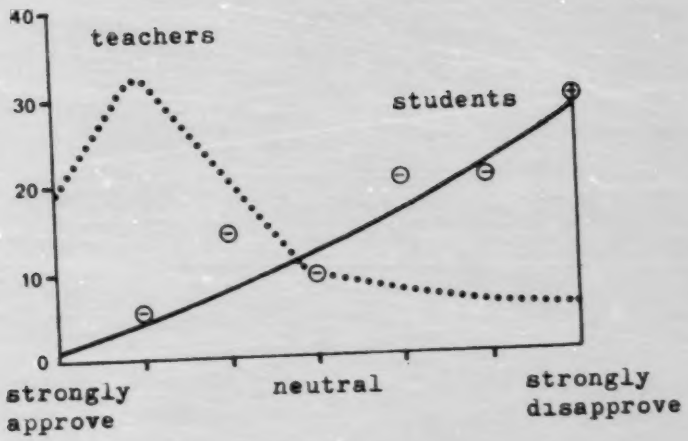
(1) The distribution of teachers' attitudes on emphasising religious education is tri-modal. There are three distinct groups : roughly equal proportions strongly in favour and neutral with a third slightly smaller group strongly against. Amongst the students there are two distinct groups, one against and one neutral. There is only a very small number, about 10 per cent of the total, who would give more than moderate emphasis to religious education. The majority of both students and teachers is neutral on the question of whether teachers should attend church.

Graph F

Distributions of the Responses of Students and Teachers to the Proposal that Pupils should Conform to Society



Given supportive circumstances the disposition could be translated into positive programmes of action. For example a number of the students in years following this study have chosen to associate themselves in one way or another with the half-dozen state secondary community schools which have sprung up in the city of Melbourne. (A brief description of these schools is contained in the final chapter).

CHAPTER VII

THE EFFECT OF A CONCURRENT COURSE

We have seen that inter-professional differences are far greater than inter-institutional differences. A student entering, say, medicine in Western Australia is more like a student entering medicine in Queensland 2,000 miles away than a fellow student entering a different faculty of the same university of Western Australia. The generalization applies to social and educational background ; motivation ; general "attitudes" such as political and social liberalism, dogmatism and intellectual interests ; expectations and images of the professions ; and the development of an outlook characteristic of the profession for which the student is training. Where international comparisons have been possible it appears that the generalization holds across countries ; and within teaching it has been found that primary student-teachers in England are very similar in their social origins, their motivation and their images of the successful teacher, to secondary teachers, whether in Australia or England.

Nonetheless, it seemed important to narrow the focus of the observations until some differences among teachers could be resolved. Of the five courses for student-teachers, the one which differed markedly in organization from the others was the concurrent course for science students at Melbourne. This is the only concurrent course in the sample, in all the other courses education studies follow university degree studies in arts, science or economics. A measure of control on the concurrent science course is provided by an end-on science education course at the same university[1]. Students exercised very little choice about which course they entered. When the concurrent course was offered for the first time it was announced only a short while before enrolments closed and was given little publicity. Applicants, all of whom had passed the matriculation requirements for entry to university, almost all preferred the end-on course. When this course was filled (students being admitted in order of sixth-form examination marks) another 100 were offered places in the concurrent course. Thus any bias would be associated with level of school examination achievement. Since the correlation between school and first-year examination results is only about +.4 and less between school and results in later education subjects, bias due to educational attitudes being

(1) Of the student-teachers who started courses at Melbourne, 89 embarked on the concurrent B.Sc.(Ed) course and 101 on the regular B.Sc. course followed by Diploma in Education. Those surviving in their courses four years later numbered 53 and 59. Of these 42 and 46 had answered all four questionnaires. This is the only part of the analysis where very small numbers are used and therefore the results must be interpreted with additional caution.

associated with school achievement is likely to be small. There were no differences between the two groups with respect to social background, sex, and initial expectations about the course and the teaching profession.

Both courses are of four years duration and lead to a science degree and a professional qualification in education. In the end-on course the students do a regular three year B.Sc. degree followed by a one year diploma in education. In the concurrent course the education studies are dispersed over the last three years of the four year integrated course. The qualification gained is a B.Sc.(Ed). The science component of this degree is equivalent in content and specialization to the regular degree. As a result the B.Sc.(Ed) is recognised by professional institutes in the same way as the straight course, and a graduate can compete on an equal footing with his B.Sc. counterpart for industrial employment, scholarships and admisstion to higher degrees in science[1]. This equivalence of status is important when the differences in commitments to teaching of the two groups come to be interpreted because the concurrent course is equally valuable for teaching and for a science career outside teaching.

In first-year the concurrent students studied the same science subjects as their end-on science counterparts, and at the end of the year took the same examinations. The main difference in their experience was that some lectures and all laboratory work (about 12 hours per week, or more than half the presentive course time) was taken in Teachers College laboratories with Teachers College staff, whereas the end-on students did all their work in university.

The end-on students do meet Teachers College staff during informal visits to the College but would not be taught by them. After first-year the concurrent students had formal educational studies included in their curriculum : about 20 per cent of the content in second year, 30 per cent in third year and 50 per cent in final year. The science subjects taken by the concurrent students after first-year were taught within Teachers College by Teachers College staff, or if room was available, in regular university classes.

Thus the main differences between the two courses are :

(a) the order in which the science and educational components are experienced, the concurrent students starting education studies in second year, and

(b) the much closer association the concurrent students have with Teachers College staff from first-year on.

The two entering groups are sufficiently similar for the set-up to provide a field experiment in the effects of course agreement. The dependent variables are commitment to teaching and various attitudes about teaching ; the independent variables are order of presentation of educational studies and degree of association with Teachers College staff. Since in first-year all students took the same science course any

(1) I am grateful to Miss Leonie Lang for permission to use her report "The Origins and Progress of the B.Sc.(Education) Course". Copies are available from the Faculty of Education, University of Melbourne.

differences may be attributed to association with College staff for one group and University staff for the other ; thereafter either influence could be operating.

A third socializing agency is the peer group. At the start of their courses both the concurrent and end-on students reported having numbers of friends who were also beginning university studies with the intention of becoming school-teachers. Only 15 per cent of the end-on, and 17 per cent of the concurrent, had fewer than two friends in the course ; half in both groups had four or more. At the end of first-year equal proportions (40 per cent) in both groups reported that a majority of their friends were teachers-in-training, but thereafter a considerable divergence occurred. More than half of the concurrent students have a majority of their friends in teacher-training, whereas less than one-fifth of the end-on students do. (Graph G).

The difference in the sorts of students the two groups spend their spare time with is even more striking. By fourth year only two per cent of the end-on, but more than one-third of the concurrents, report spending most of their spare time with other students who are intending to become teachers. Thus there are profoundly different developments of friendships between the two groups : at entry both groups have many friends also destined for teaching, and during first-year the security of old friends is maintained by both sorts of student ; thereafter, however, while the concurrent students maintain their friendships in the teaching group, the end-on students make friends and spend spare time with non-teaching students.

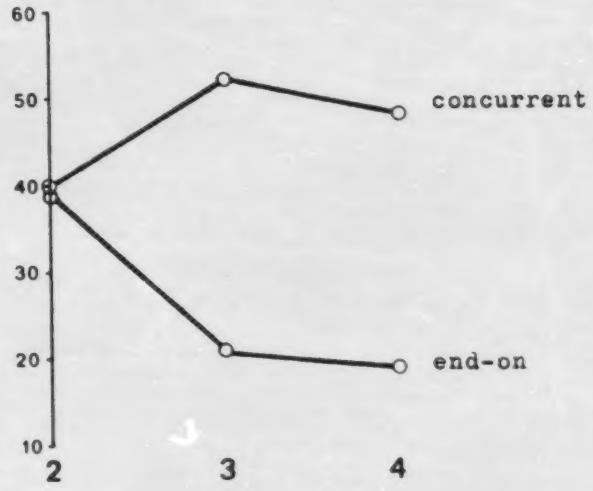
Initially the two groups were not significantly different either in respect to their intention to make teaching their life's work or their intention still to be teaching five years after graduation. At the start approximately 40 per cent of each said that classroom teaching would be their life's work, and between 50 and 60 per cent of each said they expected to be teaching in a state school five years after graduation (see Graphs[1]). At the end of first-year, however, the concurrent group had increased its proportions committed both to teaching after five years and as a life's work, whereas the end-on students declined in commitment. First-year seems to be the period of greatest effect on the concurrent students. Thereafter the proportion expecting to teach five years after graduation declines in parallel with the end-on students. By fourth-year the loss is about one-third of those initially committed. The decline in the proportion who expect their life's work to be in teaching is not so dramatic and may reflect the possibility students see of re-entering teaching after doing something else.

Since the first-year curriculum of both groups comprised only science studies, the most likely explanation of the difference is the association which the concurrent students have with Teachers College staff in all their first-year subjects. This is confirmed by the students' own reports : two-thirds of the

(1) This and the following Graphs illustrate the change in proportions of students exhibiting particular characteristics. Most of the attributes were measured using 5 point Likert-type scales. The point of division for the proportions is that generally closest to the median. The items are illustrative of inter-correlated clusters and in later analysis composite measures are to be used.

Graph G

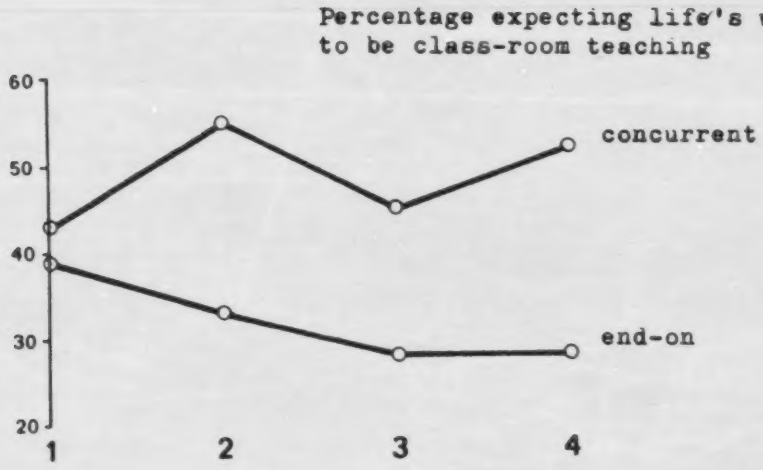
Percentage stating that Majority of Friends are School-Teachers

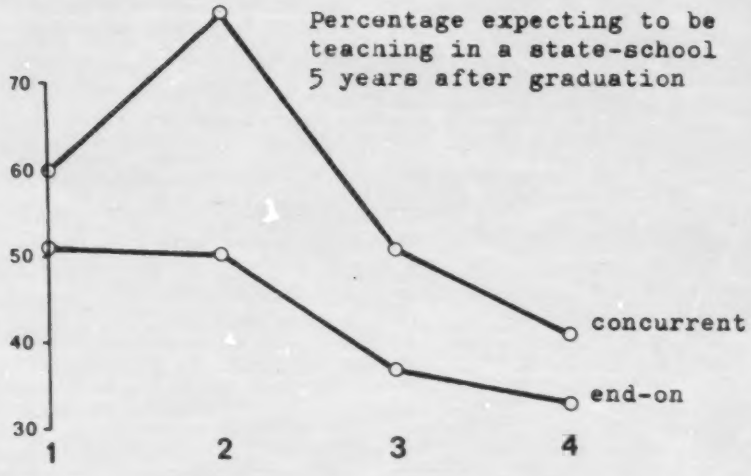


2 = end of first-year
3 = half-way through third-year
4 = half-way through fourth-year

Graph H

Commitment to Teaching





1 = at start of first-year
2 = at end of first-year
3 = half-way through third-year
4 = half-way through fourth-year

concurrent students said that the effect of first-year had been to increase their desire to become a teacher, whereas only one-quarter of the end-on science students said this. Furthermore the effect is attributed by the students to Teachers College staff members : 71 per cent of the concurrent and 35 per cent of the end-on students maintaining that it was contact with their staff which increased their intention to teach (Table 11).

TABLE 11

Per Cent of End-on and Concurrent Students Reporting the Effect of Contact with Staff on their Desire to Become a Teacher

	End-on		Concurrent	
	University Staff	Teachers College Staff	University Staff	Teachers College Staff
Increased	13	35	26	71
No difference or decreased	87	65	74	29
	100	100	100	100

It appears that there may be a wash-off effect such that contact with Teachers College staff favourably influences the concurrent students' perceptions of university staff. After first-year the concurrent students maintain that both their study and contact with University and Teachers College staff, particularly the latter, have a favourable effect on their attitude to teaching. The difference between the two groups becomes even greater after first-year. By third-year the proportion of the end-on students reporting a positive influence from either category of staff has declined to less that 10 per cent whereas the concurrent students remain much the same as at the end of first-year.

The morale boosting effect of first-year, in so far as commitment to teaching is concerned, is summed up by the response to "What effect did the first year of study have on your intention to become a teacher ?" :

	Concurrent	End-on
increased	64	26
made no difference	33	61
lessened	3	3
	100	100

It has already been noted that the teaching students are realistic in not attributing high prestige to teaching and that their judgements coincide with those made by engineering, law and medical students. At the beginning of first-year only about one-fifth of the teaching students place teaching in the upper half of a prestige list of nine different professions (see Graph I). Over

the next three years this optimistic proportion declines sharply, particularly among the end-on science students. The concurrent science students do not change, at each of the times the question was asked a similar low proportion placed teachers in the upper half of the occupations hierarchy. It is as if contact by the concurrent students with Teachers College staff or the study of education subjects counteracts experiences which in other students erode the esteem school-teachers are seen as having.

In the introduction we noted that in the ideal type of a profession there is the notion that the professional practitioner should have a great deal of autonomy in his work and that the profession must be free to engage in controversy where the public interest is at stake. These notions follow from the idea that the profession is the custodian of complex and esoteric knowledge and therefore is the only body competent to make expert judgements. In practice, as we have seen, this idea becomes mixed with a less noble trade-union attitude of protecting members from possible attack from outside. The protective mechanisms also have survival value in occupations where the practitioner is exposed to psychological stress. These ideas led us to pose the following issues to students and ask for a rating of agreement or disagreement :

A teacher should never discuss another member of staff with a student.

It is inappropriate for teachers to speak out on controversial issues in public.

Education Department teachers should not be subject to regulations preventing the criticism of government policy.

A trained and qualified teacher should be free to design his own syllabuses and examine his students without outside direction.

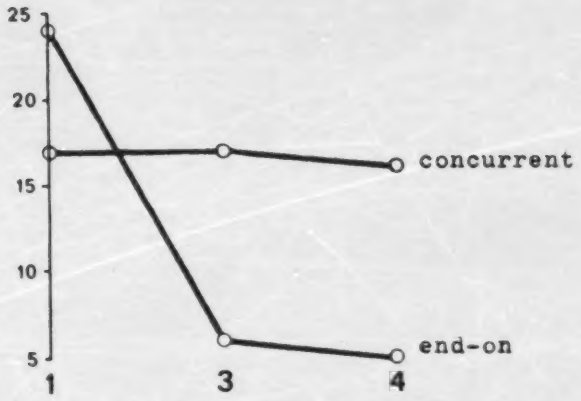
Our expectation was that the concurrent students, whose training had brought them in touch with professional teachers earlier, would adopt traditional postures earlier. In fact, as may be seen from the graphs, by the end of first-year the concurrent students are much more inclined to believe there should be staff solidarity against pupils, but not to support professional independence in the sense of engaging in public debate, or having a free run in designing curricula and examining students. It is as if the concurrent students have acquired the trade-union version of independence but have developed an establishment rather than a profession-centred position on policy matters - the establishment being the state education department.

In subsequent years the concurrent students become a little less protective of teachers. On the question of responsibility for syllabus and examining there is a dramatic reversal - with the concurrent students asserting that teachers should have greater initiative. In this area of technical competence it may be that the study of education subjects after first-year has an impact. However, on the more general issues of engaging in public debate or criticising the government the concurrent students maintain their pro-establishment position throughout.

Items were also chosen which represented the so-called traditional-progressive dimensions in educational methods and content of schooling. The traditional approach places emphasis on the maintenance of good discipline and on

Graph I

Percentage ranking School-Teachers as having High Prestige

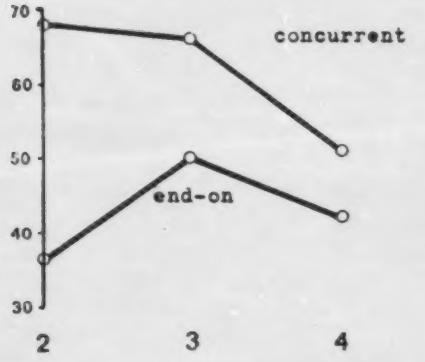


1 = at start of first-year
3 = half-way through third-year
4 = half-way through fourth-year

Graph J

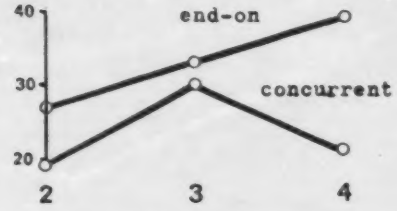
Changing Attitudes to Professional Issues

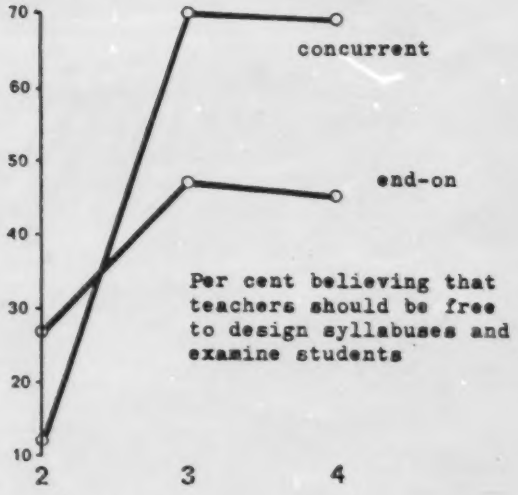
Per cent believing that teachers should not discuss other staff with students



Per cent believing that teachers should not be restricted in criticizing government policy

Per cent believing that teachers should be free to enter public controversy (disagree)





2 = at end of first-year
3 = half-way through third-year
4 = half-way through fourth-year

student-teacher relations which are not too intimate. In teaching the teacher is more active than his pupil. The content emphasises facts and education for jobs. The three pairs of items used to represent each of these three facets were[1] :

In the classroom teachers should encourage free discussion and creative activity even if traditional discipline suffers.

The use of formal or respectful titles by pupils.

In the vast majority of instances teaching is most effective when the teacher talks and the pupils listen.

Child centred education.

The preparation of pupils for future jobs.

The primary emphasis in secondary school should be on imparting factual knowledge to the pupils.

The concurrent students at the end of first-year are "behind" the end-ons in attitudes to both discussion at the expense of discipline and insistence on respect from pupils (see Graph K). There is some fluctuation but they have not caught up even by fourth year. The position of the concurrent students throughout the final years of training is closer to that of practising teachers (see International comparisons). Attitudes to child-centred education are much the same in both groups at the end of first-year but show a dramatic divergence at third-year when the proportion of concurrent students supporting the notion almost doubles. Much of this relative gain lasts into fourth year. Attitudes to "teacher talking and pupil listening" show a similar though much less dramatic pattern of change for the two groups. Again the concurrent teachers are closer in their attitudes to those of practising teachers.

Finally the two groups diverge on attitude to emphasis on preparation for jobs and learning facts. Initially holding similar positions, the end-on students come to place greater emphasis on job training (particularly in third year) while the concurrent students place declining importance on it. A similar divergence occurs in the emphasis which students say should be placed on factual learning, but in this instance the concurrent ones start off (at the end of first year) in a more conservative position. In this instance it is the end-on students whose attitudes are closer to those of practising teachers.

In summary, the outcome of the four year concurrent B.Sc.(Ed) course compared with a four year B.S.c Dep. Ed. end-on course is :

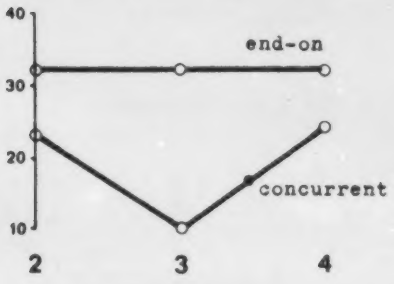
On intention to teach	Initially similar, the committed proportion among the concurrent students increases whereas among the end-on students it declines.
On perceived prestige of school-teachers	This is not high in either group, but whereas the end-on students decline, the proportion of concurrent students seeing school-teaching as relatively prestigious remains constant throughout four years.

(1) Each pair of items is positively correlated and in fact each of the pairs belongs to a larger cluster which will be used to form measures in the final analysis. One member of each pair has been chosen from the international study so comparison can be made with practising teachers.

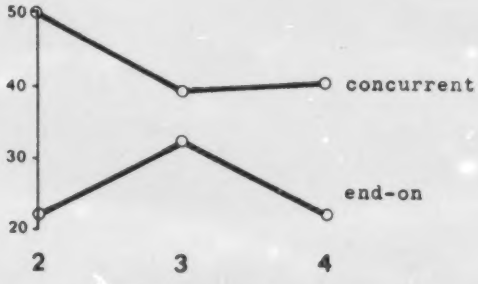
Graph K

Changing Attitudes Towards Issues in "Progressive" Education

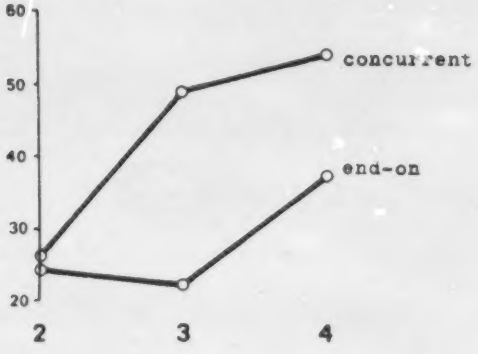
Percentage in favour of class-room discussion even if discipline suffers



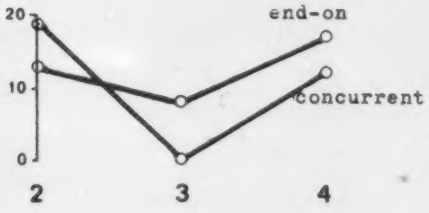
Percentage believing that pupils should use respectful titles to teachers



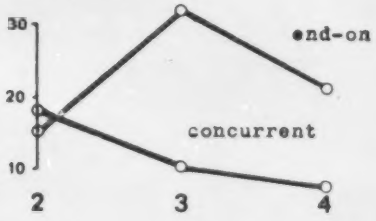
Percentage emphasizing child-centred education



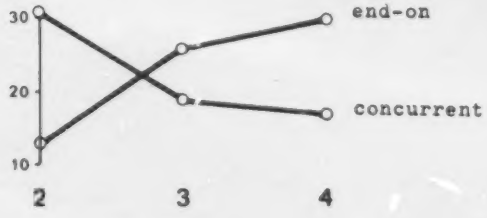
Percentage believing that learning is best when teachers talk and pupils listen



Percentage believing that schooling should emphasize job preparation



Percentage approving emphasis on imparting facts



2 = end of first-year
3 = half-way through third-year
4 = half-way through fourth-year

On teacher solidarity against students	More of the concurrent students tend to a protective attitude.
On engaging in public debate and criticism	Concurrent students remain more conservative.
On teacher freedom to devise own syllabus and examinations	More concurrent students support teacher freedom.
On importance of discipline	More concurrent students remain "traditional".
On child-centred education	More concurrent students become "progressive".
On emphasis on factual learning and training for jobs	Concurrent students become less concerned with teaching facts and job training.

On the surface of it these results may appear contradictory, the concurrent students supporting both a child-centred position and firm discipline for example. In these respects, however, they do resemble the practising teachers described in the previous chapter. It is difficult to see how the outcomes can be explained simply as the effect of a concurrent organisation versus an end-on organisation. Reference has to be made also to the particular experiences students have during training. In the present instance during their first year concurrent students had a close association with Teachers College staff. These staff members were highly qualified professional science teachers, all of whom had been first-rate school-teachers. The effect on the students of this experience seems to have been to increase commitment to teaching and to reinforce a traditional concept of what school teaching is. During the second and third years of their course the concurrent students took education subjects taught by university staff. This seems to have induced strong child-centred attitudes and reduced some of the traditional beliefs. In fourth year, however, when in practice teaching the students are again associated with more tradition-oriented staff, there is some evidence of a reversal of attitude towards the position held at the end of first year.

The striking divergence in friendship patterns is both an outcome of the concurrent/end-on structure and a contribution to some of the attitudinal differences. Attitudes learned by the concurrent students through association with Teachers College staff in first year are likely to have been reinforced and sustained by friendships with like-minded students. On the other hand, the reduction in commitment to teaching by the end-on students could be associated with friendships developed in the wider university environment.

The end-on students spent their first three years completing a science degree. They took no education subjects and were not taught by Teachers College staff. In all important respects they were ordinary university science students and in all classes they were indistinguishable from students not intending to be teachers. One effect of these three years of pure science study seems to have been to induce a reverence for factual knowledge and a belief in vocational education. Only in fourth year is there a reversal of the earlier trend to a belief in the importance of education for jobs. A second trend is for the students to adopt less of an establishment position with respect to teachers engaging in public controversy and criticising governments. Quite conceivably this is the result of the end-on

students mixing more with other non-teaching university students than did the concurrent students[1].

The results suggest that the debate over end-on versus concurrent courses cannot be conducted satisfacorily without taking into account the social experiences which students have - with staff and with fellow students.

(1) This is consistent with a general finding from the study that among all students there is a steady increase in liberal attitudes and a decline in dogmatism.

CHAPTER VIII

COMMITMENT AND WITHDRAWAL

In this Chapter we are concerned with the statistics of withdrawal, the statements of intention to remain in the profession made by students, the actual destiny of the drop-outs, and a sketch of the sort of student most likely to drop-out.

The graph in the Introduction showed that the loss from the course during training was substantial for students in all four groups. Student-teachers topped the list with a rate of well over 40 per cent, followed by law (40 per cent), engineering (35 per cent) and medicine (28 per cent). These figures seem catastrophic in the implication which they have for wasted resources on the one hand and personal turmoil on the other. To a large extent both sorts of loss are ameliorated by re-entry of students to other courses where some credit is given for attainments in their former studies. Roughly half of those who withdraw enter courses which are similar to ones they started initially.

Some students have no choice in the matter of whether they will leave. After failing in some examinations the university is likely to terminate their enrolment, perhaps temporarily and conditionally, on what is euphemistically called "academic rehabilitation". For other students the decision to leave is an act of volition and has noting to do with academic failure. In attempting to understand the phenomenon of dropping-out it is important to distinguish between these two categories.

Classified in this way "dropping-out" can be viewed more meaningfully. It may be seen for example that there is a relation between initial motivation and drop-out : law, which contained large numbers whose attraction to extrinsic attributes of the profession (a stepping stone to politics, etc.) and also was next to teaching with respect to numbers with negative motivation, contains the highest proportion of voluntary withdrawals. Teaching, with the largest number of students whose reasons for choosing the career were negative, is the other faculty in which a majority of the students who withdrew did so voluntarily.

This initial marginality of the student-teachers' motivation is reflected in statements about intention to remain in teaching. At the beginning of their course two-thirds of them saw their life's work in education. Like the students in law, engineering and medicine, about a quarter were not too sure which particular field of their profession they would be in. The difference between teaching and the other three professions is that, whereas in engineering,

law and medicine those who are undecided early-on come to fix on a particular area within the profession as their course proceeds, the proportion of undecided student-teachers remains constant and those who say that teaching is not for them increases (Table 12).

In comparing the distributions at each period of the course shown in the Table it should be noted that the numbers decline at each stage because of withdrawals. We will examine some characteristics of these drop-outs shortly. The Table also reveals a very close similarity in the distributions of the career plans of the English and Australian student-teachers. The experience of professional training - theory and practice - does not appear to have helped large numbers either of English student-teachers (who have experienced this by second-year) or the fourth-year Australian student-teachers to fix on a particular career within education - one quarter remain undecided about their career future.

TABLE 12

Expected "Life's Work" of Student-Teachers

	Australia			England
	Start of First-year n = 1089	End of First-year n = 974	Fourth year n = 537	Second year(1) n = 3237
Class-room teaching	49	46	41	49
Teacher education	4	3	6	6
Research	7	10	8	6
Administration	7	5	5	4
Planning	1	1	2	1
Not decided	26	26	24	26
Will not be teaching	6	9	14	8
Total	100	100	100	100

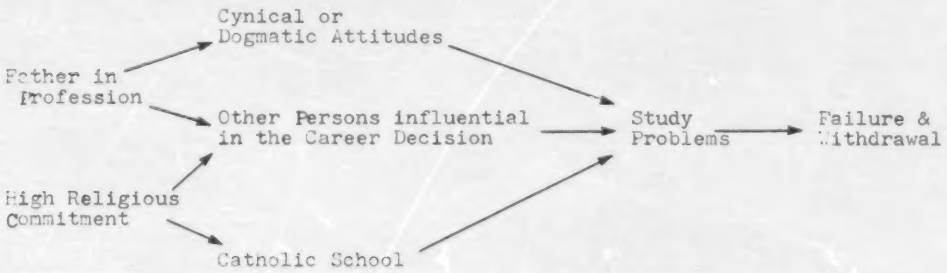
(1) End of first-year is the Australian nearest equivalent point of the course to the English.

As might be expected, most of the voluntary drop-outs left teacher-training altogether and either entered the work-force or embarked on studies in an entirely different field. The involuntary drop-outs, that is those who had failed at university, gravitated to primary teaching ; two years later 70 per cent of these were in primary Teachers' Colleges.

Analysis of the background and behaviour of the two groups of drop-outs revealed two strikingly different patterns. In all four professions the involuntary drop-outs reported personal problems and problems with studying far more than those whose withdrawal was not associated with failure. They seemed to have employed poor study methods, been unable to plan their study time effectively, and not to have

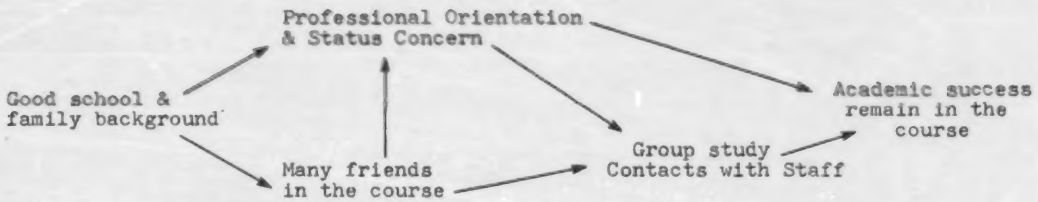
discussed their work with other students. They complained at having been ill-prepared by school for university life. In each of the four faculties there was an association of university dropping-out with having attended a catholic secondary school. Although small, the correlation was significant. Perhaps university failure is a delayed-effect of the problems due to the surge of numbers staying on at school. Certainly students were inclined to blame "poor preparation at school" for their performance. Quite apart from the type of school attended by the drop-outs (and statistically independent of it), the involuntary ones were more religious in terms of church attendance and strength of belief. Another background factor associated with failing and dropping-out appears to be parental influence. A disproportionately large number of these students had fathers who were in the same profession as the student was training for ; furthermore, parental pressure was reported by many as a reason for choosing the career.

The sorting-out of cause and effect from survey data is a complex task and the results are best treated as hypotheses for further study. The mass of information in this study which was associated with student performance was reduced to manageable proportions by cluster analysis and causal models were tested by path analysis (Hilgendorf, Clark and Irving, 1967). One set of significant associations between the variables linked with involuntary drop-out are represented as follows : (The group might be labelled Other-directed).



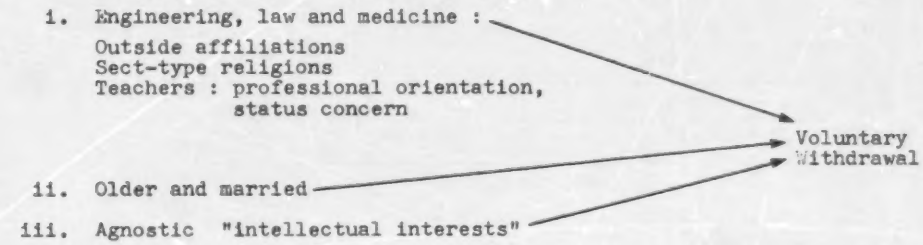
There was a tendency for the successful students who remained in their courses to be young, to have good school records and so to be from middle and upper class backgrounds. Their motivation includes both "professional orientation" and a concern for the extrinsic satisfactions associated with being a professional (high salary, social prestige, etc.). This group of students also included many who had more friends at university, who engaged in voluntary group study, and who got to know members of university staff.

A model of the connections between the variables which is statistically consistent is as follows :



This model fits data from the engineering, law and medical samples but not the teachers. For them "professional orientation" is not associated with continuing.

The group of voluntary withdrawals, the "opt-outs", comprised three fairly distinct sorts of student. One tended to be agnostic and score very high on the scale of Intellectual Interests. A second tended to contain students with very strong religious connections who belonged to sect-type denominational groups. The third tended to be older married students whose family obligations made continuation of study impossible. There is no connection between any of the sub-groups, and the hypothetical model may be represented thus :



Again the model does not exactly fit the data from the student-teachers. In this case there are also three independent sub-groups, ii and iii being much the same as for engineering, law and medicine. The first sub-group in the case of teaching however contains the status concern/professional orientation emphasis which in the other professions characterized the continuers.

It must be emphasized that these models are based on small, although significant, correlations. They comprise a set of possible causal sequences which are statistically significant. A great deal more investigation would be needed before the implied effects can be accepted with confidence. The models are of interest in the present report because they illustrate that student-teachers are different from other students.

CHAPTER IX

COMMENTS AND IMPLICATIONS

About two-thirds of the student-teachers in the sample of this study came from social backgrounds which are neither professional nor affluent and where the level of parental educational attainment was not great. Other studies confirm that this connection exists in many countries. The data are consistent with the transitional role attributed to the teaching profession in studies of occupational mobility.

Teaching is also responsible for bringing into higher education two other social groups, which are under-represented in the professions. These are country residents and girls. As higher education becomes more representative of all social groups, teaching absorbs a larger proportion of the newcomers than any other career. The balance has now tipped so that secondary school teaching, as well as primary, is becoming a female occupation. This phenomenon has also been noted in North America and European countries as well as Australia. Part of the reason is that parents are more reluctant to help their daughters than their sons into higher education. Despite the near parity of the sexes in upper secondary school, girls are outnumbered two to one by boys at university in Australia. Compared with her brother, a girl aspiring to enter a university needs, if she is to gain parental support, better results, a good financial grant and the promise of a secure career - preferably one that can be accommodated to motherhood. In Australia the generous grants to student-teachers and the provision of supervised residential hostels for country students entering teaching help counteract parental reluctance to the idea of university education for their daughters. In fact, the inducements have proved so attractive that, in order to retain a semblance of balance between the sexes, some colleges now require a higher entry standard from girls.

Unfortunately, teaching is the professional task which can least sustain the lack of continuity due to child-bearing and family care. In dentistry, medicine, law and engineering, to take only a few examples, the job need not suffer too much if the practitioner has a few days off in order to care for her own children, or if she resigns for a few years to get a family started. In school-teaching, however, a teacher absent for a few days, or the turnover of staff during a year or even between years, can retard the learning process out of all proportion to the time lost.

This is not an argument against women in teaching per se. Obviously there is no fundamental difference between the sexes in skills, dedication etc. for teaching, and adequate home-help schemes and creches can reduce the distractions

which family obligations have on a teacher's effectiveness. It remains a cause for concern, however, when teaching is chosen as a convenient means of earning an income by members of either sex who are not highly committed. The evidence of the rapid growth in the numbers of women who enter teaching contrasted with the near static minorities in the other major professions suggests that teaching is being chosen because of its convenience rather than because of commitment.

Some more general concerns about the quality of schooling are suggested by the social background of recruits to teaching. Taking the conservative definition of the function of education - to transmit the most valued parts of a common culture to successive generations - a question arises as to whether the distinctive social and regional origin of teachers is the most appropriate for this task. (It should be remembered when reflecting on this issue that the teachers in the university sample are almost certainly the social and intellectual elite of the profession's recruits). It would appear desirable that teachers as a group and compared with other professions, should come from the most educated rather than the least educated families ; and that country students, with their presumably more limited experiences, were not so over-represented. Changes in recruitment policies might have a marginal effect on the sorts of persons attracted to teaching. However, in recruitment, as in training, major changes cannot be expected while the essential nature of schools and of school-teaching remains unaltered.

The student-teachers shared one characteristic with the recruits to engineering, law and medicine. They were all young school-leavers, most of whom had proceeded directly to university without a break after completing sixth form studies. In order to discuss the implications of this it is necessary to remind ourselves of the aim of secondary teaching. Two broad themes run throught the discussions of the teacher's task. One is aiding the personal development of pupils to become psychologically mature, self-sufficient, well-adjusted citizens (this is sometimes calles self-actualisation role) ; the second is helping students to develop "cognitive capital" ; including aesthetic appreciation as well as intellectual and technical skills and knowledge. The two objectives are by no means independent ; as was pointed out earlier, the achievement of a satisfactory vocational identity is a necessary part of full personal development. It would be desirable if persons recruited to teaching were themselves exemplars of these characteristics. That is, they should be both psychologically mature and have achieved expertness in some intellectual or other vocational field. They should be expert practitioners rather than middlemen. We expect teachers to be wise, mature, experienced, insightful, and yet we recruit young people who have had little opportunity for the experiences which lead to these traits.

This argument leads to the position that in recruitment to teaching much more attention should be given to obtaining older persons who have been successful at something else. The role of a secondary school-teacher has been like that of a retailer, transmitting knowledge and skills developed by others more expert than he. Let the teacher himself be one who is a successful practitioner at something else, and let teaching be a subsidiary but honorable role. A further development of this idea would involve greater use being made of suitably selected and trained part-

time teachers : professional people, skilled technicians, artists, computer programmers, historians, craftsmen and so on who would pass on at first-hand those parts of the "common culture" in which they have excelled. University graduates intent on teaching should be encouraged to take employment in the area of their own specialisation as a further preparation for school-teaching.

Recruitment into teaching of older persons who have accomplishments in some other field also has implications for raising both commitment to and morale in the profession of teaching. It should be of profound concern that so many young people drift into teaching because "nothing else appealed at the time" or because they could not get into a more preferred career. Evidence from colleges which specialise in teacher-training for older persons is that morale is higher and intention to remain in teaching greater than for young students in ordinary colleges. For example the special course for recruits who must be at least 24 years of age run by the Secondary Teachers College at Melbourne from 1959 to 1971 had a success rate of 95 per cent.

Teachers who are qualified in something else would not feel bound to teaching for life. Even if they remain in teaching the knowledge that they are qualified for other work might avoid some of the unfortunate survival adaptations described by Waller. This view of secondary teaching as a subsidiary role for persons with primary skills in other fields has profound implications for the idea of professionalization of teachers and will be taken up shortly. The dual role of expert/teacher should be seen as alternative for some of the teaching work-force to that discussed in an OECD report[1], where teaching is seen as a life-long commitment and for which continuous training should be regarded as part of the work.

A less radical reform, and one capable of ready implementation in most countries, would be to encourage most of the recruits to teaching to spend a year or two at work after leaving school and before starting full-time training. While this would not provide them with an additional identity it would be a broadening and possibly maturing experience for teachers destined to spend their working lives in the same institution as they spent their childhood and adolescence. The Australian government's new scheme of grants for students contains a provision inserted to this end. There are to be no fees ; in addition, those who have supported themselves independently of parents for two years will qualify for a living allowance not subject to any means test.

A further aspect of the dilemma about specialist teacher-training versus the broadening of experience concerns where teachers should receive their professional training - in a specialised teachers college or in a multi-faculty university or college where the student-teachers can mix freely with other students. Furthermore, if it is in the latter, should it be an end-on or a concurrent course ?

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(1) The Teacher and Educational Change : A New Role. General Report, Vol. I, Part One, OECD, Paris, 1974.

The results from this study are directly relevant to the last aspect of the dilemma. Our evidence points to a greater professionalization and commitment by those student-teachers whose training brings them into early association with professional educators. The students themselves, more than any other group, would have preferred to be trained in an institution controlled by the profession ; and, like all students in professional courses they also showed impatience with studies not clearly related to their view of professional practice. If one wanted to strengthen the professional identity of student-teachers in a university one would be tempted to group them together from the beginning of their courses, to start vocational training early, and to make sure that they experienced some of the crisis situations which they will meet as teachers. (Comparable perhaps to the rite de passage which medical students undergo when required to disect a cadaver - an emotional experience which promotes a camaraderie among recruits and helps develop in them a common professional identity.) We have seen that those students who have earlier contact with professional education increased in their commitment to school-teaching. They also developed an orientation which is fairly traditional.

Unfortunately traditional orientations are not necessarily what is wanted in schools today. Furthermore, separate courses for teachers insulate them from the liberating experience of a university education. The study-in-depth of some intellectual disciplines not necessarily connected with professional practice, the development of critical faculties, the approach to skills and techniques through the study of underlying principles, and the mixing with other students whose backgrounds are different and who are headed for different careers, are all experiences likely to be missed by students in separate courses.

Posing the issue in terms of concurrent versus end-on organisation is not the most fruitful way to approach the problem. Our data indicate that the concurrent students were influenced by early association with professional teachers and by remaining in a tightly-knit group of fellow students. The end-on students moved out into the university much more. If a concurrent course is desirable on other grounds (and the earlier discussion about the age at which students commit themselves to teaching suggests that it may not be) it can be organised so that students nonetheless obtain full advantage of being in a university-type environment.

Of central importance are the role-models which students encounter. If student-teachers meet traditionally oriented teachers and techniques of pupil domination early in their training, this is likely to have a profound influence on their own development as teachers. In fact, of all professions, it is only the future school-teachers who had had intimate and prolonged association with role-models during their own school days. The positive influence that a particular teacher at school had in the making of their career decision was reported by a large proportion of our sample. Some evidence of the nature of this particular influence comes from a study of morale in secondary schools in several parts of Australia in 1972. In a large sample from a variety of sorts of schools, about one-fifth of the students in upper secondary classes expressed an interest in teaching as a career. Those who chose teaching were the ones who adapted most readily

to the submissive role so often expected of pupils. (Anderson and Beswick, 1972). These students seem likely to become the committed - traditionals of the typology developed earlier.

If one wants to break what may well be a self-perpetuating cycle it would be necessary to make a careful analysis of the system of recruitment, training and practice, and then identify the points where change could be effected[1]. It may be that until the role of the teacher is changed the pattern of recruitment will remain much the same.

The literature on teacher-training does not contain a great deal of evidence of the effectiveness of particular approaches in influencing student-teachers towards set objectives. As has been suggested, the influence of the role-model might have been underestimated : if the practical-teaching sessions which the students are placed in require that the teacher be the dominant partner in a dominance/submission relationship, then lectures and discussion back at college may have little effect.

Since the present research was started a new course of teacher education has been added to the more traditional courses at the University of Melbourne. This course, which is for university graduates in arts or science, places central emphasis on experience. The student-teachers spend a good deal of each week in schools as "interns". Their experience of teaching gained both through observation and participation becomes the starting point for explorations of the nature and

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(1) The assumption that a new sort of teacher is needed is now fairly widespread in the educational literature. For example the British Schools Council's new humanities curriculum project makes explicit reference to the effect the project will have on the value system and ethos of the school. (Humanities Curriculum Project, 1970). The claim rests on the assumption that schools do operate with an authoritarian mode ; also, that the more equal teacher/student relationship required by the project (and the values it implies such as respect for student opinion, choice and participation) will generalise to other areas. It is also assumed that teacher opposition to the curriculum will arise not because of a questioning of its content and intellectual structure, but because of its threat to the teachers' attitudes and values. "This transfer (of attitudes) will be regarded as advantageous by teachers who welcome openings for a change in relationship with students, but it may be seen as a disadvantage or even as a threat by teachers who disapprove of the idea of according a more adult status to adolescent students".

The adoption of the curriculum in a school does imply a fundamental change for any teacher who relies heavily on a didactic institutional approach. The project requires that the teacher does not operate as a source of information, opinion or reward. His role is rather that of a neutral chairman, his relation with students is more equal, his approach is non-directive. He would also have to operate as a member of a teaching team and cooperate in the use of resources. Thus a teacher should not only be convinced of the aims of the course but should be capable of operating in the appropriate style.

It is significant that induction courses are offered with the curriculum, and the handbook suggests a continuous self-training procedure based on tape-recording and subsequent analysis of class discussions using criteria such as "to what extent do you interrupt pupils while they are speaking ? Why and to what effect?"

I am indebted to Janet Maw of Sussex University who drew my attention to this project and part of whose own report on it is summarised above.

practice of teaching, with social science staff members of the university[1].

The particular relevance of the new course for the present discussion is that most of the students are placed in one of the new "community schools" which have sprung up within the state system. In these schools the teacher-pupil relationship is more equal than in traditional schools, there is less formality and compulsion and, in the curriculum area, students exercise more choice and considerable use is made of resources outside the school. The staff at the schools choose to work in them and hence have a commitment to what is a fairly radical new direction within state education. According to one analyst the community schools "arose because it is clear (to some teachers) that schools have no monopoly of resources and experience, that people other than teachers can contribute to learning, that there is no reason why every adult should not take part in the education of everybody else". (White, 1973). This is not Willard Waller's teacher, dominant in the class-room and ruling "as a Jehova none too sure of himself".

The relationship of student-teacher and master-teacher[2] is not a passive one. In fact the master-teacher concept is inappropriate. The student-teachers attend staff meetings and engage in school activities ranging from the offering of units outside their own specialities to taking part with teachers in inter-disciplinary efforts at curriculum construction. The student-teachers quickly become involved in group tasks with staff and pupils.

The new course has not been in existence for long enough for the results of the evaluation to be available. Early reports are that none of the members intend to leave teaching and that commitment is very high. In fact the students would be classified as committed - radical in the typology. Some would previously have been uncommitted - radicals but have changed during the course. The course will need to run for some years before any Hawthorne effect on the results can be discounted. It also remains to be seen whether the community schools can continue in a form which offers an alternative to the traditional dominant teacher role. Unlike many innovative schools, these exist within a state system which is free. Thus the outcomes will not be attributable to the unwitting selection of students of upper-class parents (who can afford to pay the fees and whose home environment has a powerful educational effect). On the other hand most, but not all, of the pupils are volunteers and as a consequence of this maintenance of order is not an overwhelming aspect of the teacher's task.

The course which has just been described illustrates one particular difference between traditional courses of teacher training and modern methods. Increasingly teachers, along with other professionals, are being required to work in teams. Yet, as Schein points out "professional education is almost totally geared to producing autonomous students and provides neither training nor

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(1) Mrs. Gwen Dow, Reader in Education, University of Melbourne, kindly supplied the details of the "alternative diploma in education" course which she directs.

(2) Master-teacher is used in the sense of apprentice-master ; not in the sense, used in Dr. Sharp's paper, of an upper tier of highly skilled teachers (see note 1, p. 83).

experience in how to work as a member of a team, how to collaborate with clients in identifying needs and possible solutions, and how to collaborate with other professionals on complex projects". (Schein, 1972).

In the present study there were few instances where the student-teachers are given experience designed to help them operate as members of a team. In some cases students themselves banded together to work on assignments (and generally these students achieved better individual results). Official efforts at setting group tasks were almost always bedevilled by the problem of assessment. The doctrine, which runs very deep in education, is that each individual must be assessed alone and on the basis of his independent achievements. The prospect for successful group work is made even more limited when the students feel that they are in a competitive situation. Once students believe that only a fixed proportion will pass, or come to value the prestigious honours bestowed only on the topmost achievers, it is unreasonable to expect them to work seriously at group tasks which can in no way help one individual get ahead of the others.

The approach of the new Melbourne course has been to try and get the best of both worlds. It is pointed out to the new students as they embark on the course that they are a very high quality group and "it will be remarkable if any of you fail, so we assume that you're going to pass. If, however, you want a competitive assessment... for a post-graduate award... let us know and we will arrange an honours programme for you, so that you can be assessed". So far only one student has requested such an assessment, motivation of all remains very strong and the quality of group work is very high. If there must be examinations at the end of a course there are strategies available which avoid inducing interpersonal competition with its disruptive effect on effective group activities. One such strategy is to set a group task which will be examined in such a way that each individual member will receive the same mark. So as to reduce the possibility of a few keen students doing all the work there is also an individual examination for some members of the group. Those to be examined are chosen by lot and their average marks are awarded to all members of the group.

The central question of the study of professional socialization remains to be answered. Is the perspective a useful one with which to view the development and training of student-teachers ? Part of the answer requires us to return to the question, "Is teaching a profession?". This issue is discussed in other OECD papers[1]. The answer tends to be an ambiguous one : "they are probably not nearly as far removed from professional status as is often assumed, and the reforms now in progress may not contribute toward further professionalization". Dr. Sharp focusses a future two-tier structure in which the "upper echelons - be

(1) The Teacher and Educational Change : A New Role. General Report, OECD, Paris, 1974, Vol. I, Part Two : "Teachers as Professionals : Current Career Profiles and Trends in the United States", by J.M. Sharp; "Towards a Policy for the Professionalisation of Teachers", by S. Balloch.

they called master teachers, educational specialists, or professional teachers - will act and be treated as true professionals. The future of the class-room teacher is more debatable. The easiest and most tempting prediction is for a continuation of a semi-professional or quasi-professional role for the bulk of class-room teachers : that of an increasingly well-trained technician, who will perform a skilled technician's task, defined outlined and supervised by a professional...". It is pointed out that this prediction shows few signs of coming to pass, and that while the creation of "new high teaching level positions is likely to increase, this may not be at the expense of the class-room teachers, who will continue to travel the tortuous road towards professionalism...".

This two-tier structure can be elaborated to include the idea of part-time experts, or resource personnel, who would contribute from their own speciality and, while having high prestige because of their attainments in other fields, would be coordinated by the "master-teacher". It is less easy, however, to accomodate the notion of recruiting into the full-time teaching force older more mature persons. These would presumably not be greatly attracted to the position of "technician".

The weakness of the professional socialization perspective in accounting for what happens to student-teachers stemmed partly from the assumption that there is a culture of school-teaching. In medicine and law, and to a lesser extent engineering, it is possible to speak of a culture comprising the roles and associated attitudes, values, dispositions and skills of the members. Although there is technological change the culture remains more or less intact. In these professions it makes sense to regard a student as being socialized into this culture. In teaching the traditional culture is under attack. Furthermore the attitudes, values, etc. associated with the role are by no means attractive to a large number of recruits. Although a good deal of the empirical work remains to be done it appears as if it will not be possible to make sense of the development of student-teachers until we distinguish between the committed and the uncommitted (noting that of all professions teaching attracts more than its fair share of the latter) ; and between traditionals and radicals. The radicals are more common in teaching than elsewhere, and the fundamental rethink which is going on in education throughout the world suggests that there will be roles for them. In the meantime the functionalist concept of socialization is an inadequate one in helping to explain the development of these students because they are interested in changing the culture rather than being changed by it.

In so far as teacher training is concerned, the main hypothesis suggested by this study is that student-teachers will be influenced by the role models they encounter. If the aim is to produce innovative teachers then innovative role models will be the most effective means. Roles arise out of a context and any departure from the traditional role which the oft-quoted Willard Waller describes will require new sorts of schools.

These new sorts of schools will have to be seen in the wider social context of what society expects from its education system. The demand for order,

which has been referred to throughout this paper, arises largely from the custodial role which schools are expected to have. Schools are baby-sitters keeping children out of Mum's hair and off the streets while adults go about their business. This is not new ; George Bernard Shaw said that "... the object of education, the true aim of the school, remains what is was in my day : to keep children out of mischief, mischief meaning for the most part worrying the grown-ups". The importance of this aspect becomes clear as scon as custodial care is suspended, during a teachers' strike for example. The idea of voluntary attendance, or even attendance for scheduled classes only, which is associated with some progressive proposals for secondary schooling, leads to resistance from communities which are not keen to have adolescents "roaming the streets all day long". I doubt very much if many people apart from students and teachers appreciate the extent to which traditional schooling is a time-wasting institution. This waste of teaching resources and the demoralisation of youngsters is tolerated by communities which are mainly concerned to have youngsters kept out of the way.

On top of this schools have become social "too-hard" baskets. Whenever there is a social problem too difficult for anyone else the schools are expected to solve it, and so we get demands for drug education, education to combat delinquency, education to preserve the environment, sex education, driver education and even education for citizenship. All the evidence points the other way - that schools are best at their conservative function of transmitting a common culture, least effective as agents of social change. Schools can never make much progress as centres of educational innovation until their function as institutions to promote learning is separated from their function as custodial institutions. If this separation is not effected then teacher-training will still be profoundly influenced by the traditional role model.

The implications of separating the custodial and learning functions of school are profound. If present day schools are to be relieved of adolescents who don't want to be there, what is to become of them ? The answer may be sought first in making schooling more appropriate to the needs of adolescents and secondly in re-examining the relation between school and work. These themes cannot be developed here, but it should be noted that there are alternatives to the arrangement whereby school precedes work and the idea that once a person has begun work his school-days are over. For example, an individual may participate in school and work simultaneously, perhaps spending two days a week or a period of the year in employment. Furthermore, there should not be profound dismay if young people who are scholastically unmotivated (temporarily at least) leave school early providing that opportunity for re-entry at a later age is guaranteed.

Throughout this paper it has been implicit that teachers should be emotionally mature individuals, intellectually able and sensitive to the needs of young people. It is, however, unrealistic to set aside one-quarter of the entire population in age-specific institutions called schools and expect to recruit a workforce of teachers in the ratio of about one to every 20 pupils and expect them to possess the above qualities. Rather than deplore the quality of teachers it should be a matter for wonder that so many of the few in society who are mature, intelligent and sensitive do find their way into teaching.

It has been argued that a teacher's personality is profoundly influenced by the social relations of his job, as in the case of many other occupations. Thus even although the research evidence which has been used in this paper concerned recruitment and training, first priority in any programme of change must be given to reform of educational structures. Teacher education and recruitment offer opportunities which are largely consequent on changes in the task of teaching. For this reason the following summary of suggestions is in a rough order of priority, with changes in the structure of schooling first.

1. Face up to the implication of the presence in schools of a significant number of adolescents who are not motivated.
2. Support the trend for teachers to become facilitators of learning - resource persons rather than instructors.
3. Recognise that there are numerous largely untapped resources available to assist the teaching and learning process (technical equipment, teacher aides, fellow-pupils and persons and institutions in the community).
4. Recognise the importance of role-models in teacher education.
5. Give emphasis to maturity and commitment in recruitment policies. An operational test of maturity might require the applicant for teaching to have had work experience after school, and to have been successful in a scholarly discipline or other vocation in addition to pedagogy.

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